



# Brain Drain

Preventing Degenerative Brain Diseases  
Preserving Cognition

Dr Len Brancewicz, NMd, CCN, RPH  
Protocols by Joe Messino, Functional  
Nutritionist



**NUTRITIONAL**  
**FRONTIERS™**

Making the world healthy

[NUTRITIONALFRONTIERS.COM](http://NUTRITIONALFRONTIERS.COM)

# DRLENJB.COM

- **(727) 916 – 4215**
- **PODCAST AT SPEAKER.COM... “Your Daily Dose” with Dr. Len**
- **Daily podcast with the most up to date information from all sources**
- **As Health Director, assistance is there for any difficult situations... just email or call**



# Joe Messino

**Joe Messino has been involved in the wellness field for over 30 years. Beginning with a career in martial arts, hitting the pinnacle as PKA Karate Association PA Champ in 1984 & 1985. His career progressed into functional nutrition & functional medicine as National Sales Director for Douglas Labs, 1997, Director of National Accounts & product formulator for Food Science Corp, 2008, and now Trainer & Educator for Nutritional Frontiers since 2016.**  
**Contact Info: [joe@nutritionalfrontiers.com](mailto:joe@nutritionalfrontiers.com), 412-973-6264**





**Our brains are  
aging faster  
than our  
bodies...**

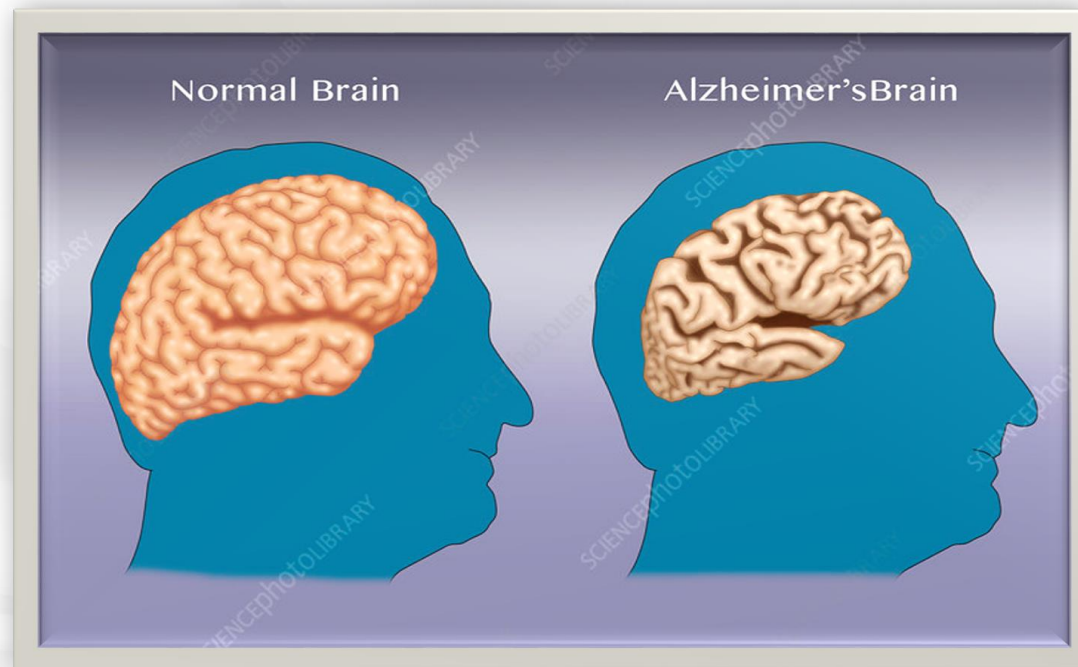
**And that's NOT  
a good thing!**



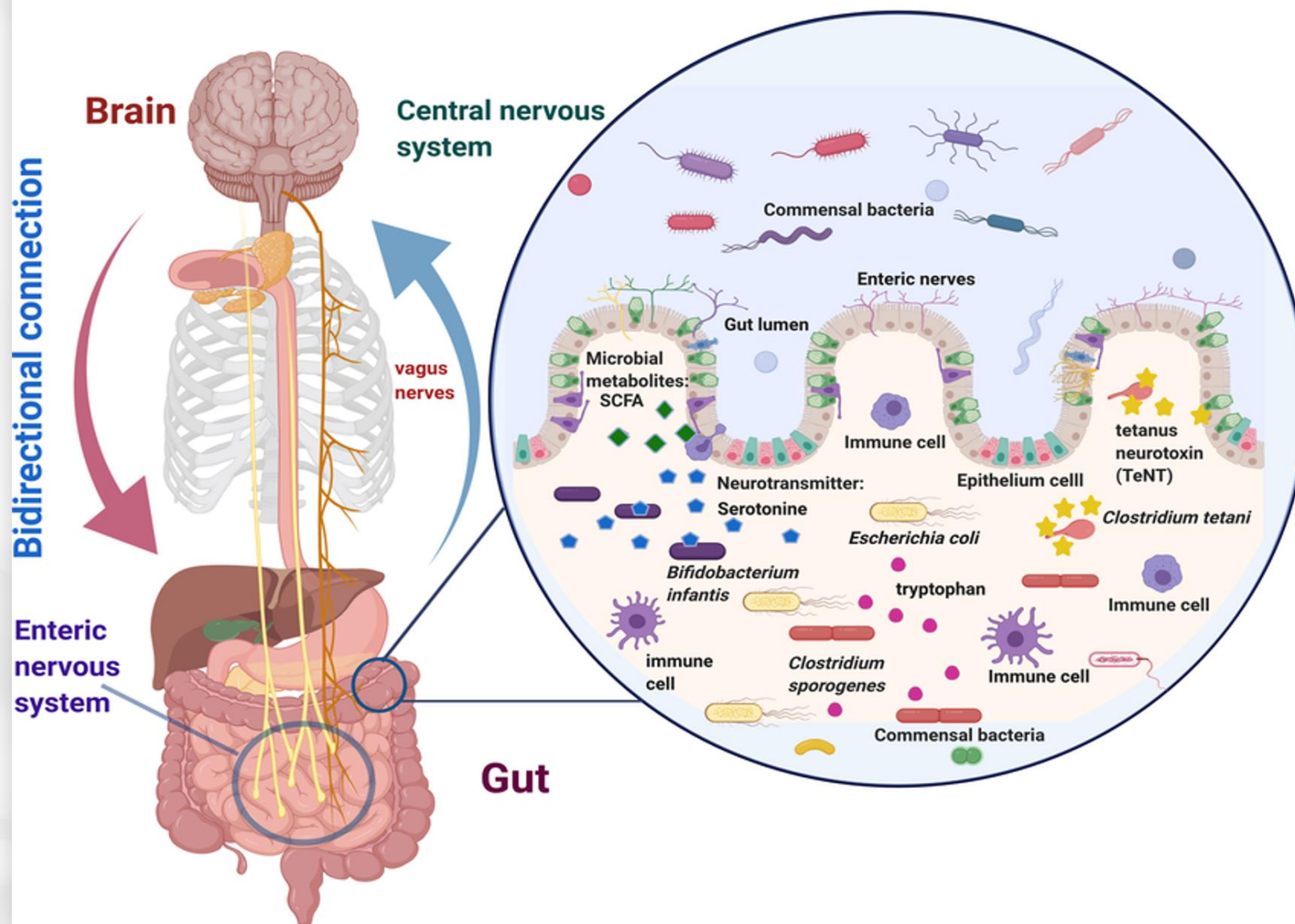
# Definitions: Metaphorically & Scientifically

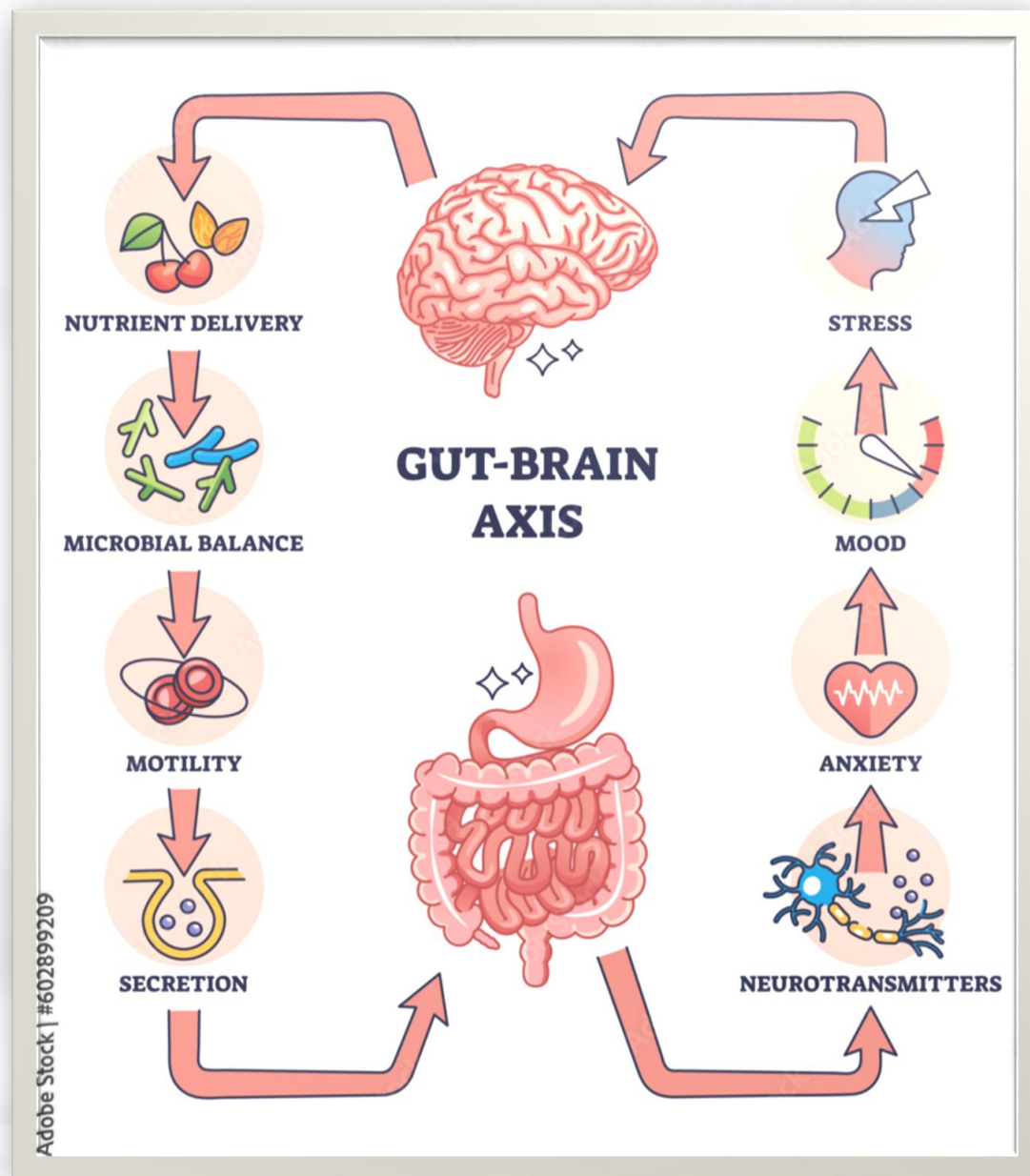
**Metaphor: Loss of cognitive potential**

**Biology: Loss of brain cells, synaptic density, etc**



## Microbiota-gut-brain axis





# Understanding The Threat

---

**Alzheimer's disease: memory, function, death**

---

**Multiple sclerosis: brain, muscle**

---

**Parkinson's: dopamine, nerve control, death?**

---

**ALS: complete muscular shutdown, death**

---

**Huntington's disease: progressive, motion, cognition**

---

**Epilepsy: seizures**

---

**Migraines: many related reasons, but neurological**

---

**Stroke: the damage vs. recovery**

---

**Traumatic brain injury**

---





# The Threat, Continued

---

**Spinal cord injury: impaired neurological**

---

**Peripheral neuropathy: chemo, diabetes, neurological**

---

**Carpal tunnel: structure as well as neurological**

---

**Bell's palsy: paralysis of face, inflammation nerves**

---

**Meningitis: crossing brain barrier**

---

**Narcolepsy: hypocretin, chronic neurological**

---

**Dementia: loss of brain volume and function**

---

**Tourette's syndrome: repetitive involuntary motion**



# The Common Thread

**Cellular dysfunction and death of neurons  
manifests through several interconnected  
mechanisms.**



# The Common Thread

- **Protein mis-folding and aggregation**
- **Mitochondrial dysfunction**
- **Inflammation**
- **Disrupted cellular communication**
- **Oxidative stress**
- **Neurons have limited regenerative capacity!**





# The Biochemistry Links Between All The Above



**Protein aggregation and mis-folding: these folds trigger similar cellular stress response and overwhelm the protein quality control, autophagy pathways**



**Oxidative stress and mitochondrial dysfunction: elevated ROS in all the above, due to amyloid-beta's toxic effects on mitochondria**



**Neuroinflammation: abnormal RNA metabolism in splicing and transport; synaptic dysfunction**



# Biochemistry Links, Continued

- **Axonal transport disruption: defective transport of mitochondria, neurofilaments, microtubule stability, and motor protein function**
- **Glutamate excitotoxicity: neuronal death is inevitable; frontal synaptic function and memory deterioration**
- **Genetic overlap: very common threads–C9orf72 gene expression leads to dementia.**
  - **This explains why most therapies overlap in their involvement**

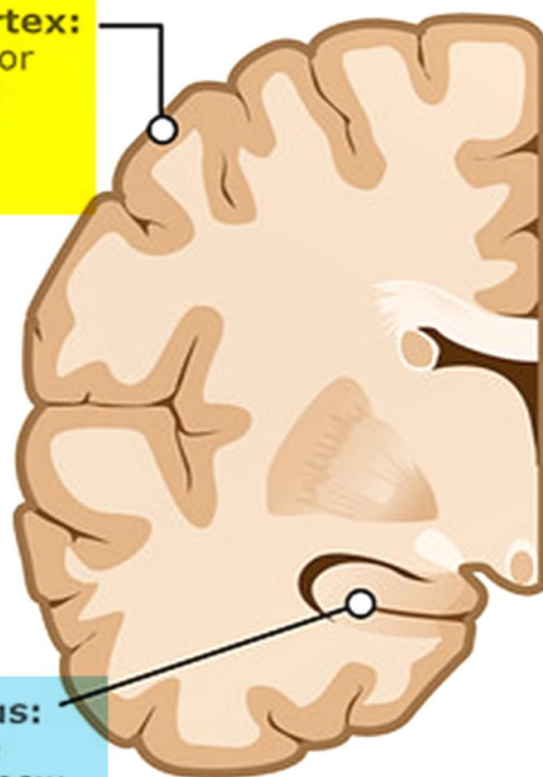


# Alzheimer's disease

Healthy brain

**Cerebral cortex:**  
Responsible for  
language and  
information  
processing

**Hippocampus:**  
Critical to the  
formation of new  
memories

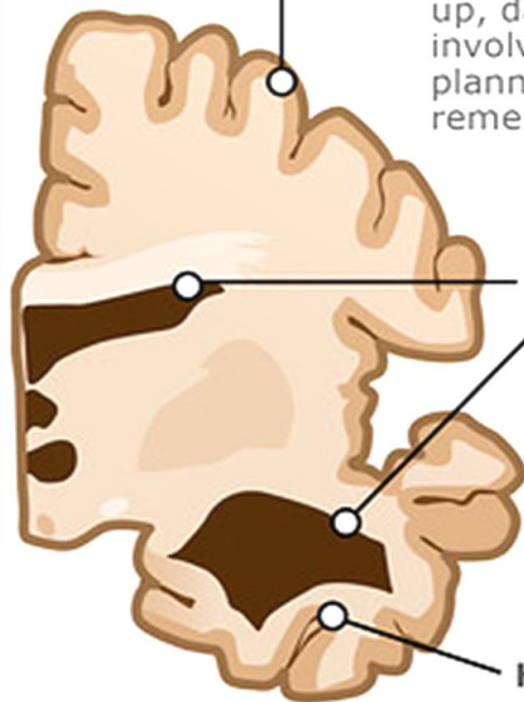


Alzheimer's disease brain

The **cortex** shrivels  
up, damaging areas  
involved in thinking,  
planning and  
remembering

**Ventricles**  
filled with  
cerebrospinal  
fluid grow  
larger

**Hippocampus**  
shrinks severely



Source: Alzheimer's Association

# Causes of Cognitive Decline



**Genetics**



**Lifestyle  
Factors**



**Environmental  
Toxins**



**Inflammation**



**Mental  
Inactivity**

# Brain Drain in Modern Life

## **Lifestyle and Cognitive Erosion**

**A) Excessive Screen Time**

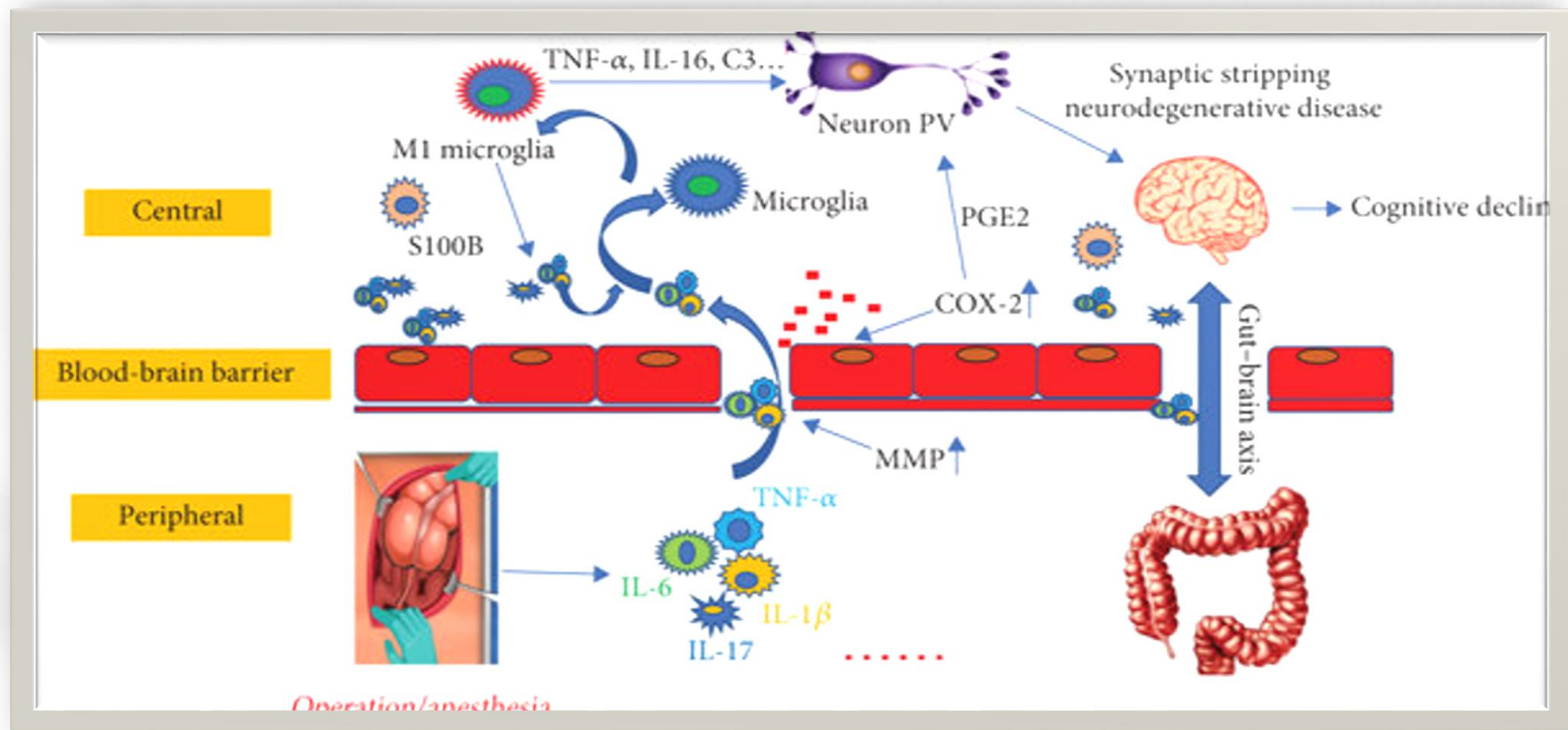
**B) Poor Diet**

**C) Lack of Sleep**

**D) Chronic Stress**







# Prevention Strategies

## **Building Brain Resilience:**

- A) Regular Exercise**
- B) Brain Training (Puzzles, Learning)**
- C) Healthy Diet (Omega 3's, Greens)**
- D) Sleep Hygiene**
- E) Social Engagement**

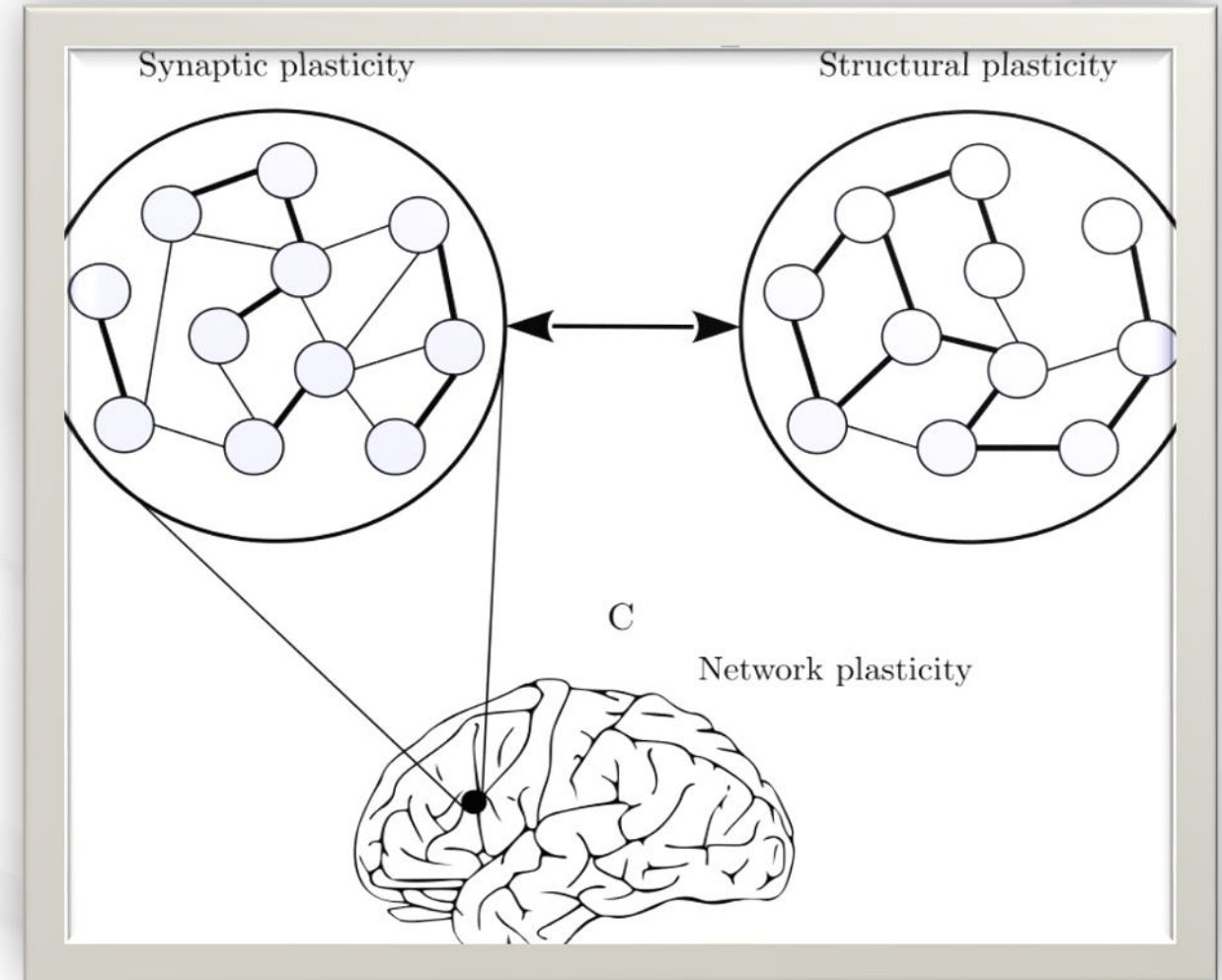


# Neuroplasticity & Resilience

## Rewiring the Brain:

**A) The brain adapts and forms new connections.**

**B) Positive habits enhance cognitive reserve.**



# Emerging Research

## **Hope on the Horizon:**

- A) AI in Early Detection**
- B) Stem Cell and Gene Therapies**
- C) Gut-Brain Axis Studies**
- D) Proper Supplements**





# Daily Brain Health Plan

## **Your Brain Boost Checklist:**

- A) Morning Exercise**
- B) Mid-day Healthy Meal**
- C) Afternoon Brain Exercise**
- D) Evening Relax and Sleep**



# Conclusion

**Protect Your Brain, Live Fully:**

**A) Degeneration is Not Inevitable**

**B) Prevention is Possible with Daily Habits**

**C) Take Action Today, Not Tomorrow**



# The Research:

- **Brain chemicals shape appetite and blood sugar..jourbrain and neurological health 7/25**
- **Ultra-processed foods brain changes..healthnews..6/25**
- **Animal foods good for brain health..brain and neurohealth 6/23/25**
- **Food affects cognition..dementia and alz.12/8/24**
- **High dose vitamin d and neurologicals..health news3/16/25**



# The Research, Continued

- **“Modify the microbiome” ...*Health News*, 12/8/24**
- **“Brain flushes out waste” ..*Health Premium Reports*, 12/19/24**
- **“Reading print better for brain” ..*Lifestyle Journal*. 3/16/25**
- **“Optimal time to prevent cognitive decline” ..*Research and Discoveries*, 4/10/25**
- **“Citrus fruits enhance brain function” ..*Food and Nutrition* 4/20/25**





# The Research, Continued

- **"Obesity and the brain"..*Brain and Neurological Health*, 5/29/25**
- **"Working long hours changes brain"..*Research and Discoveries*, 6/4/25**
- **Parkinsons': second most common neurodegenerative**
- **"Olive oil and the brain"..*le roux* 6/22/25**
- **"Speed up cerebral detoxification"..*Health View*, 2/5/25**
- **"How to boost dopamine in Parkinson's"..*npj* 2024**
- **"Avocados and the brain"..*American Heart Assoc.*, 2022**



# THE PRODUCTS THAT WORK!

**Nattokin Plus**

**CircuCore**

**SPM**

**Glucolyze**

**NutraGlutide**

**Brain Boost**

**Mood Boost**

**Calm Day**

**Sleep Time**





# THE PROTOCOL FOR: BRAIN WASTE

**Sleep Time:** 1-2  
Caps at Bed

**Calm Day:** 1-4 Caps  
per Day to  
Regulate Stress

**NAD+:** 1-2 Caps  
per Day

**Gluthathione:** 1  
Vial Daily for 10  
Days. Stop for 20  
days and repeat.

**Brain Boost:** 2-4  
Caps per Day

**Olive Oil and  
Avocados** with  
Everything



# THE PROTOCOL FOR: ADHD

## Under 12 Years:

NeuroMax – 1 tsp 1-2 times per day

EnerDMG Liquid – 1 dropper 1 to 3 times per day

D3 Liquid– 5,000 IU's per day

## Adults:

Brain Boost – 3 caps per day

NAD+ - 1 to 2 caps per day

EnerDMG – 1,000 to 1500 mg per day

Pro Purples – 1 to 2 scoops per day

Remove all refined and artificial sugars, preservatives, flavors and colors from diet.

Increase good fats such as coconut, coconut oil, avocados and avocado oil





## SUPPLEMENT FACTS

**Serving Size:** 7.5 ml (approximately 1 tsp.)

**Servings Per Container:** 60

### Amount Per Serving

Vitamin B1 (as Thiamine HCl)	10 mg
Vitamin B5 (as Pantothenic Acid)	10 mg
Vitamin B6 (as pyridoxine HCl and Pyridoxal 5-Phosphate)	30 mg
Folate [from Quatrefolic <sup>®</sup> , (6S)-5-Methyltetrahydrofolic acid, glucosamine salt]	667 mcg DFE
Vitamin B12 (as Methylcobalamin)	25 mcg
Vitamin D3 (as Cholecalciferol)	10 mcg (400 IU)
Magnesium (as Magnesium citrate)	50 mg
Calcium (as Calcium citrate)	50 mg
Zinc (as Zinc amino acid chelate)	3 mg
Dimethylglycine HCl (DMG)	250 mg
Betaine Anhydrous	25 mg

**Other Ingredients:** Purified water, glycerin, xanthan gum, natural flavors, malic acid, stevia leaf extract, and potassium sorbate.

**Suggested Use:** Shake well before each use. As a dietary supplement take:

**4-11 years old:** 1/2 tsp. twice daily.

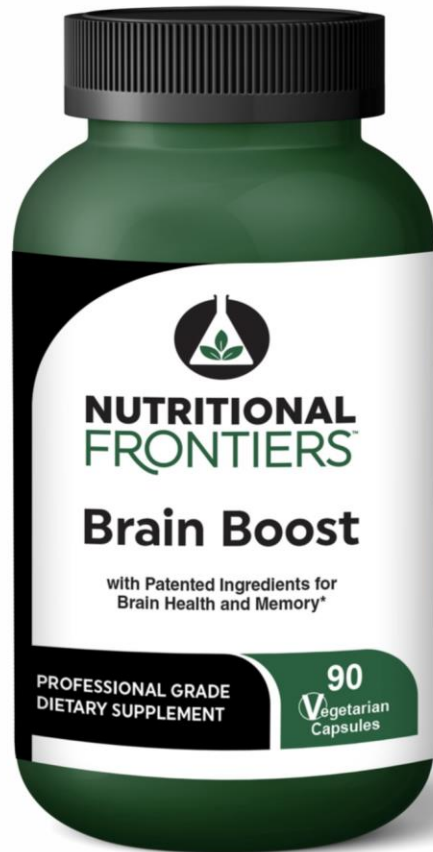
**Over 12 years old:** 1 tsp., 3 to 4 times daily or as directed by your healthcare practitioner. Product can also be mixed with a small amount of water or juice if desired.

**Warning:** If pregnant or nursing, consult your healthcare practitioner before taking this product.

---

# NeuroMax Liquid





Cognition

Memory

Focus

## SUPPLEMENT FACTS

**Serving Size: 3 Capsules**

**Servings Per Container: 30**

**Amount Per Serving**

Folate	800 mcg
(as Quatrefolic® (equivalent to 1.6 mg of (6S)-5-Methyltetrahydrofolic acid, glucosamine salt))	
Vitamin B12 (as Methylcobalamin)	300 mcg
Phosphatidyl Choline	400 mg
Bacopa Monnieri Extract (20% Bacopasides)	300 mg
Ginseng (Panax) Root Powder	200 mg
Phosphatidylserine	200 mg
Acetyl L-Carnitine HCl	200 mg
Ginkgo Biloba (Leaf)	45 mg
Vinpocetine	15 mg
Huperzine A	50 mcg

**Other ingredients:** Rice flour, Vegetable Stearate, Silicon Dioxide, Vegetable Cellulose (Capsule), Water

**Suggested Use:** As a dietary supplement, take 3 capsules per day with food, or as directed by your healthcare practitioner.

**Warning:** This product contains vinpocetine. Do not consume this product if you are pregnant or could become pregnant. The FDA has warned that consumption of vinpocetine may be associated with adverse reproductive effects. Consult your healthcare practitioner before taking this product.

# Brain Boost

# THE PROTOCOL FOR: PARKINSON'S

**EnerCoQ10:** 4-8 Tablets  
per Day Supplying  
300mg of CoQ10 and  
300mg of DMG)

**Omega 3D:** 2-4 Soft  
Gels per Day Supplying  
3,200 to 6,400 mg of  
EPA/DHA

**D3 Liquid:** 10,000 IU's  
daily

**Organic CBD Liquid  
Tincture:** 1-2 Droppers  
per Day

**NAD+:** 2 Caps per Day



# THE PROTOCOL TO ENHANCE BRAIN-GUT

**GI Complete:** 1-2  
Scoops per Day in  
Morning/Evening  
on Empty stomach

**IgG:** 1 scoop daily

**SPM:** 2-4 Soft Gels  
or 2 Teaspoons per  
Day

**Brain Boost:** 3 Caps  
per Day

**Prozyme:** 1  
Chewable with  
Each Meal, Plus 1-2  
Before Bed



# THE PROTOCOL TO PREVENT AGE RELATED DECLINE

**EnerCoQ10:** 1-  
2 Chewable  
Tablets per Day

**Brain Boost:** 3  
Caps per Day

**Pro Purples:** 1  
Scoop per Day

**NAD +:** 1-2  
Caps per Day

**20/20:** 3 Caps  
per Day

**Sleep Time:** 2  
Caps Before  
Bed





Focus

Skin

Circulation

## SUPPLEMENT FACTS

**Serving Size: 10 Grams (Approx. 1 Scoop)**

**Servings Per Container: 30**

### Amount Per Serving

Calories	40
Total Carbohydrate	9 g
Dietary Fiber	3 g
Total Sugars	1 g
Folate (as L-5-Methyltetrahydrofolate Calcium (Biofolate®))	200 mcg
Sodium	20 mg
Proprietary Fruit Blend	4 g
Cranberry Fruit Powder, Blueberry Fruit Powder, Raspberry Fruit Powder, Black Currant Fruit Powder, European Elder Fruit Powder, Black Cherry Fruit Powder, Plum Fruit Powder, Dried Plum Fruit Powder, Vitis labrusca Fruit Powder, Bilberry Fruit Powder, Fig Fruit Powder.	
Proprietary Vegetable Blend	1 g
Beet Root Powder, Carrot Root Powder, Asparagus Shoot Powder, Solanum melongena Fruit Powder, Cabbage Leaf Powder.	
Proprietary Circulation Matrix Blend	660 mg
Cabbage Palm Fruit Powder, Camu Camu Fruit Powder, Mangosteen Fruit Extract, Lycium Fruit Powder, Pomegranate Fruit Extract, Activin® Grape Seed Extract.	
Proprietary Brain Blend	91.01 mg
N-N-Dimethyl Glycine, L-Carnosine, Trans-Resveratrol (from Japanese Knotweed Root Extract), Alpha Glycerylphosphorylcholine, NutriPQQ™ Pyrroloquinoline Quinone Disodium Salt, Huperzine-A (from Toothed Clubmoss Leaf and Stem Extract).	

**Other Ingredients:** Fibersol®-2 Digestion Resistant Maltodextrin, Banana Fruit Powder, Natural Flavors, Citric Acid, Rebaudioside A (From Stevia Leaf Extract).

**Suggested Use:** As a dietary supplement, mix 1 heaping scoop (10 g) daily in 8 oz. of cold water or juice, or as directed by your healthcare practitioner.

# Pro Purples

# THE PROTOCOL FOR OBESITY AND THE BRAIN

**Ultimate Shake:** 1-2 Scoops per Day

**Pro Lean Greens:** 1-2 Scoops per Day, Combined with Ultimate Shake

**Liv Complete:** 3 Caps per Day

**NutraGlutide:** 2 Caps per Day

**Thermogenesis Complete:** 3 Caps per Day

**Control:** 1-3 Caps per Day

**Brain Boost:** 3 Caps per Day







**Insulin Resistance**

**Cortisol Balance**

**Blood Sugar Regulation**

**Serving Size:** 2 Capsules | Servings Per Container: 30

Chromium (as Chromium Nicotinate Glycinate Chelate)(Albion®)	200 mcg
Berberine (Berberine Hydrochlorides Berberis aristate Rebersa®)	250 mg
Cinsulin® Cinnamon water extract (bark)	250 mg
Capsimax Capsicum Ext. (contains 2% Capsaicinoids)	250 mg
L-Theanine (Suntheanine®)	200 mg
Sensoril® Ashwagandha extract (root and leaf)(std. 10% withanolide glycoside conjugates)	100 mg
Sirtmax® (Kaempferia Parviflora root extract)	50 mg

**Ingredients:** Hypromellose (capsule), MCC, Silica, Magnesium Stearate

**Suggested Use:** As a dietary supplement, take 2 capsules daily, or as directed by your healthcare practitioner.

**Warnings:** If pregnant or nursing, consult your healthcare practitioner before taking this product.

Color of this formula may vary due to color variations of the ingredients.

Keep out of reach of children. Store in a cool, dry place.

\*This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.



Albion® is a registered trademarks of Balchem Corporation or its subsidiaries. Capsimax is a trademark of OmniActive Health Technologies Ltd. Suntheanine® is a registered trademark material of Taiyo International. Sensoril® is a trademark of Natreon, Inc. and is protected under U.S. Patents 6,153,198 and 7,318,938. Sirtmax® is a registered trademark of Tokiwa Phytochemical Co., Ltd. CinSulin® is a registered trademark of Tang-An Medical Ltd. Rebersa® is a trademark of Sabinsa

 **NUTRITIONAL FRONTIERS**  
NutritionalFrontiers.com • (412) 922-2566

# NutraGlutide



**Cravings**

**Imbalance**

**Insulin Resistance**

## SUPPLEMENT FACTS

**Available Bottle Sizes:** 90

**Serving Size:** 1 Capsule

**Softgels Per Container:** 90

### Amount Per Serving

Fenugreek Extract	250 mg
(Standardized to 50% saponins)	
L-Theanine	100 mg
Rhodiola Rosea Extract	100 mg
(Standardized to 1% salidroside)	
L-Tryptophan	50 mg

**Other ingredients:** Capsules (vegetable cellulose), maltodextrin, magnesium stearate, and silicon dioxide.

**Suggested use:** 1 capsule 3 times a day, or as directed by your healthcare practitioner

**Caution:** People injecting insulin or taking anti-hyperglycemic drugs like metformin should monitor their blood sugar carefully when starting supplements that may lower blood sugar, to prevent hypoglycemia. If this product causes gas or bloating, simply reduce the dose and wean up slowly over the course of a week.

# Control



**Blood Sugar Balance**

**Metabolic Support**

**Insulin Sensitivity**

**Serving Size:** 1 Capsule | Servings Per Container: 60

Selenium (as Selenium Glycinate)(Albion®)	50 mcg
Chromium (as Chromium Nicotinate Glycinate Chelate)(Albion®)	200 mcg
Dahlia4™ (Dahlia pinnata Flower & Petal Extract)	150 mcg
Vanadium (as Vanadium Nicotinate Glycinate Chelate)(Albion®)	100 mcg

**Ingredients:** Hypromellose (Capsule), Rice Flour, Magnesium Stearate

**Suggested Use:** As a dietary supplement, take 1 capsule daily, or as directed by your healthcare practitioner.

**Warnings:** If pregnant or nursing, consult your healthcare practitioner before taking this product.

Color of this formula may vary due to color variations of the ingredients. Keep out of reach of children. Store in a cool, dry place.

\*This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.



NutritionalFrontiers.com • (412) 922-2566

Albion® and the Albion Gold Medallion design are Registered Trademarks of Balchem corporation or its Subsidiaries.

Dahlia4™ is a trademark of Aroma (N.Z.) Ltd.



# Sweet Balance

# Let's Talk Brain Health

**N-acetyl-  
cystine**

**Brain Boost**

**Nattokin Plus**

**SPM**

**Omega-3s**

**Ultimate  
Shake**

**Ener-CoQ10**

**Andrenamax**

**NAD +**

