# Unwired!

The cortisol code:

Mastering hormones, Mood and Stress in an Overstimulated World

Robert A. Rakowski, DC, CCN, DACBN, DIBAK







Day 1 2 weeks 17 Months



#### Ranking in Order of Impact on Health in the US Today



#### **Magnificent 7 Hierarchy**

Eat Right: Foundation for cellular health and longevity.

Sleep Right: Restores body and mind, enabling other habits.

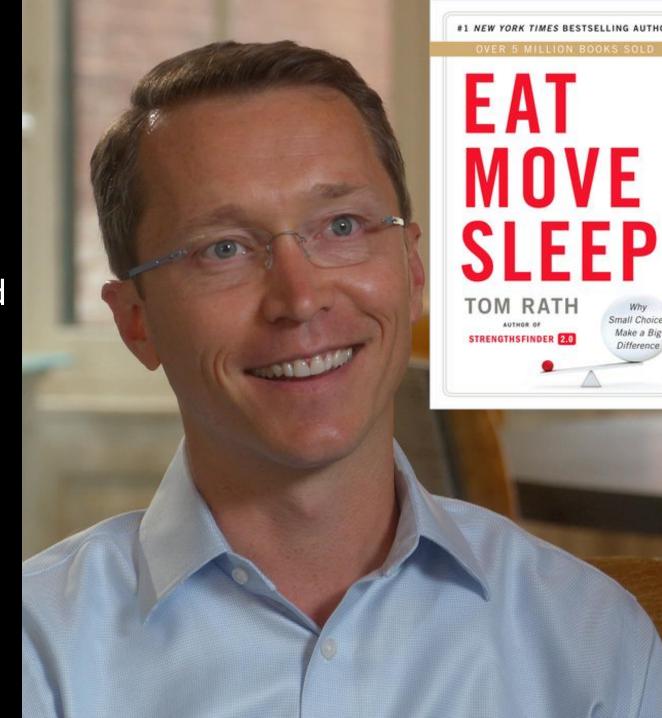
Move Right: Actively builds health and happiness.

**Drink Right:** Supports physiological functions.

Poop Right: Detoxifies, dependent on diet.

Think Right: Enhances mental and emotional well-being.

**Talk Right:** Strengthens social bonds and legacy. Grok / AI

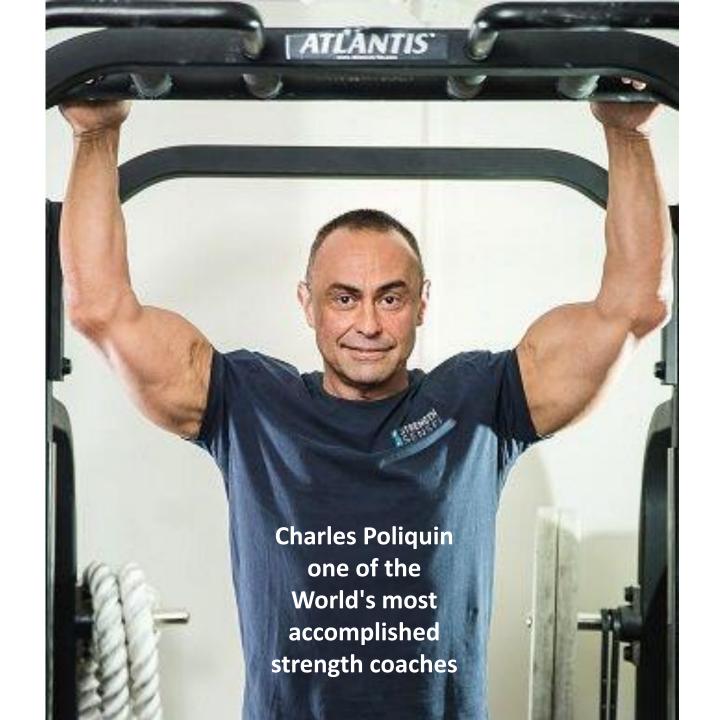


Pillar	Description	Mood Enhancement (1-10)	Stress Overload Reduction (1-10)	Hormone Dysregulation (1-10)
Eat (Nutrition)	Balanced, nutrient-dense diet (e.g., Mediterranean-style, high in omega-3s, fiber, antioxidants).	9/10 (Boosts serotonin via tryptophan; 15-30% depression risk reduction in RCTs.)	8/10 (Reduces inflammation-linked stress; 10-20% cortisol drop.)	9/10 (Improves insulin sensitivity by 20-30%; stabilizes estrogen/testosterone via gut health.)
Drink (Hydration)	Adequate water intake (e.g., 2- 3 L/day), potentially herbal teas for added benefits.	5 (Mild dehydration worsens mood; 5-10% cognitive/mood improvement with rehydration.)	6 (Prevents stress exacerbation; 10% cortisol stabilization in mild cases.)	5 (Supports metabolic function; minor 5-10% insulin/glucose balance aid.)
Think	Positive mindset practices (e.g., gratitude, cognitive reframing).	9 (Positive psychology boosts dopamine/serotonin by 20-30%; 25% mood score gains.)	9 (Lowers perceived stress by 20-40% via HPA regulation.)	7 (Reduces cortisol-driven dysregulation; 10-20% hormonal balance via lower inflammation.)
Move	Regular exercise (e.g., 150 min/week aerobic + strength).	9/10 (Increases BDNF/endorphins by 20-50%; 30- 50% depression reduction.)	9/10 (Lowers cortisol by 15-25%; 20-40% stress score improvement.)	8/10 (Enhances insulin sensitivity by 20-30%; supports sex hormone production.)
Sleep	7-9 hours/night with quality hygiene.	9/10 (Regulates serotonin/melatonin; 20-40% mood improvement in sleep-deprived.)	9/10 (Reduces HPA hyperactivity; 20-30% cortisol normalization.)	9/10 (Balances cortisol/insulin; 15-25% sex hormone stabilization.)
Poop Detox	Practices like sweating (sauna), fiber intake, or avoiding environmental toxins.	6 (Reduces inflammation; 5-15% mood lift via gut detox.)	7 (Lowers oxidative stress; 10-20% cortisol reduction in toxin-exposed.)	7 (Supports liver detox for hormone clearance; 10-15% estrogen/insulin balance.)
Talk Right (Cells and	Positive self-talk, social engagement, or mindset for	8 (Boosts oxytocin/serotonin by 10-20%; 15-25% mood	8 (Social buffering reduces stress by 20-	6 (Lowers cortisol; 5-15% support for insulin/sex hormone signaling.)



**Improving** sleep gets you the most bang for your buck.

**Charles Poliquin** 



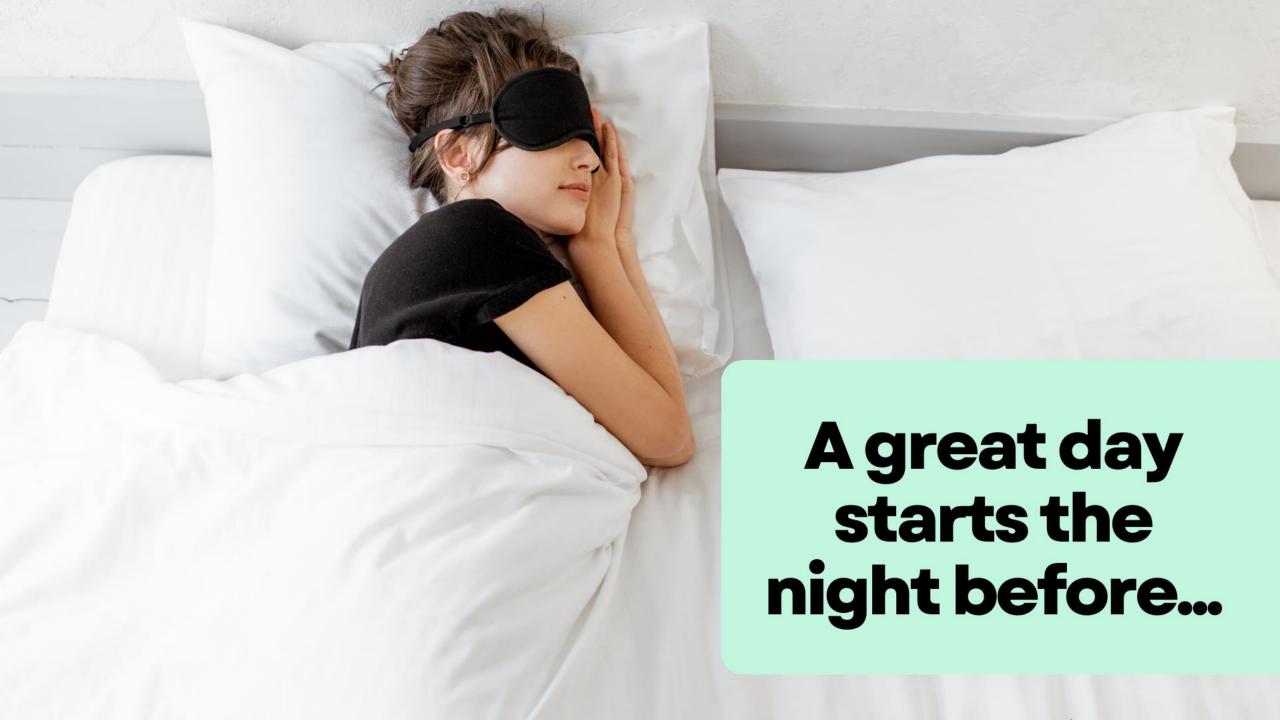


SECRETS FROM
THE NEW SCIENCE
OF EXPERTISE

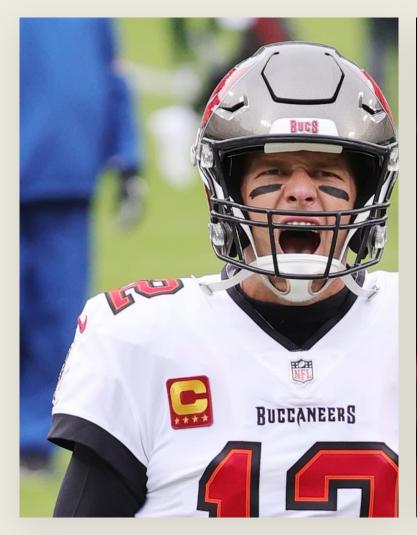
Anders Ericsson

"Offers an optimistic anti-determinism that ought to influence how people educate children, manage employees and spend their time... The good news is that to excel one need only look within." – The Economist

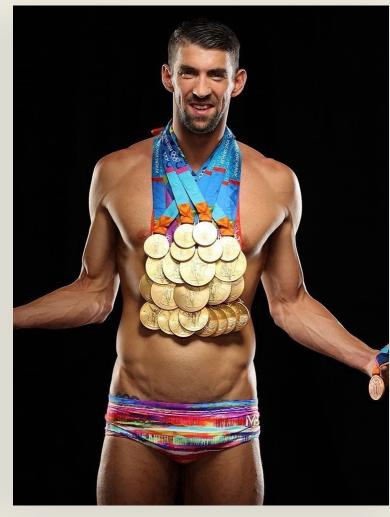
# The best of the best slept 8.6 hours each night!



# Sleep is a high priority







### TIPS FOR A GOOD NIGHT'S SLEEP





GET UP AT THE SAME TIME



**EVENING WALKS** 



**COMFORTABLE BED** 



COOL AND DARK ROOM



BEDTIME ROUTIME RELAXING BATH







HEAVY FOOD



BLUE LIGHT



ALCOHOL, SMOKING



CAFFEINE



HARD TRAINING



STRESS

# Sleep Time

**Sleep Time** — A formula designed to support the neurotransmitters dopamine and serotonin, which have a role with sleep cycles and anxiety. It supports both falling and staying asleep. Nutritional Frontiers' Sleep Time includes:

**Gamma aminobutyric acid (GABA)** a naturally occurring amino acid that works as a neurotransmitter in your brain. GABA inhibits, certain brain signals and decreases activity in your nervous system producing a calming effect.

**Suntheanine®** (**L-Theanine**), protected by over 40 U.S. and international patents, stimulates activity in the brain known as alpha waves, which are associated with a relaxed but alert mental state.

**5HTP** studies have shown it to help with insomnia and depression **Melatonin** is a hormone naturally produced by the body to regulate circadian rhythm (sleep-wake cycle) often disrupted by lifestyle.





I like the idea of an expanding sleep window.

Sleep 4 hours the first night for example

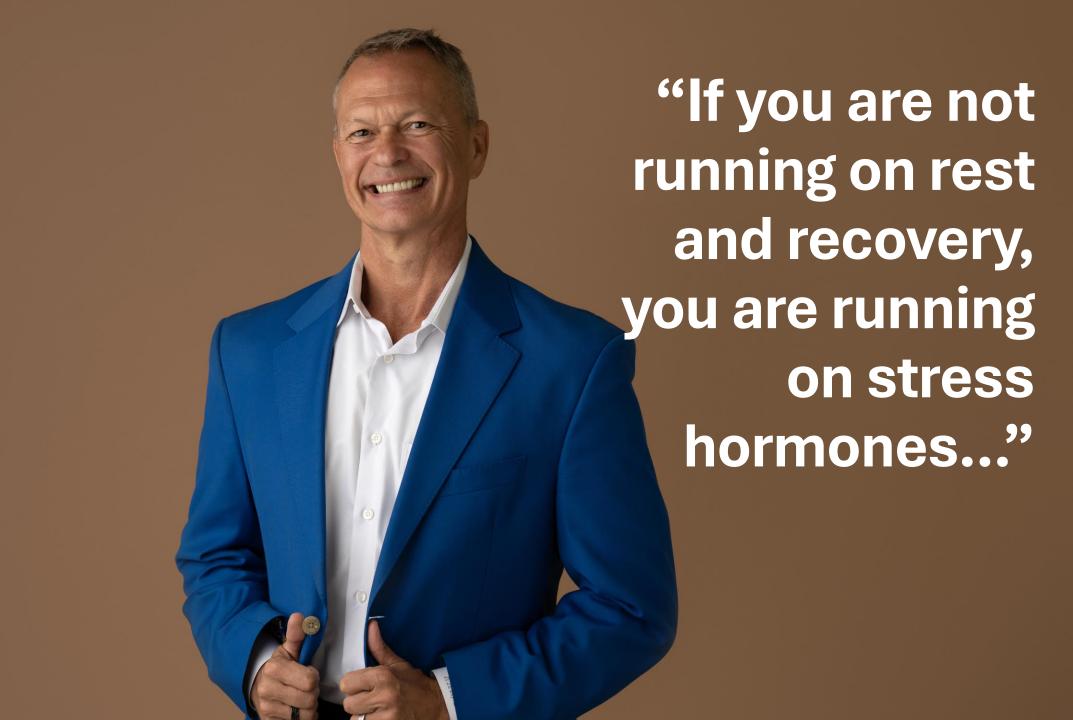
12 am to 4 am. Go to bed at 12 and get up at 4. No stimulants are allowed at ALL.

Next night expand the window in both directions 1150 pm to 4 10 am.

The patient must stay in bed for that entire time. Again, no stimulants.

Keep expanding the window until you find the optimal window (10pm to 6am sounds great).

This has worked with most of my patients. Let me know how it works for you.



#### Sleep is "mental floss"

1. sleep facilitates the glymphatic system's clearance of metabolic waste

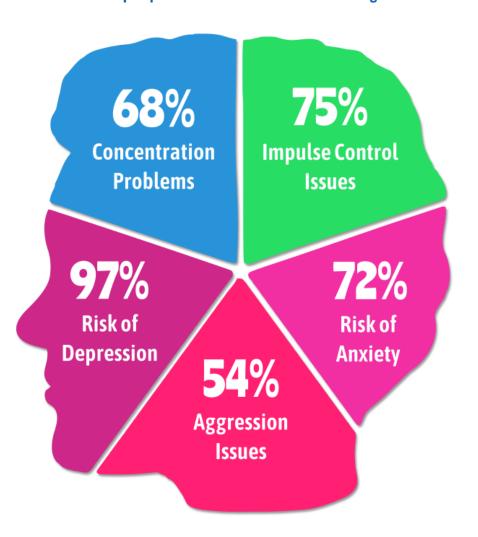
Science: [DOI: 10.1126/science.1241224]

- 2. Sleep consolidates memories and removes irrelevant information Walker (2017), Why We Sleep
- 3. Sleep's role in pruning synaptic connections, optimizing neural efficiency, and clearing mental fatigue

Nature Reviews Neuroscience: [DOI: 10.1038/nrn2153]

## Its Official - 58% Of Children Are Not Getting Enough Sleep

These children are at a greater risk of experiencing mental health issues. Even mild sleep deprivation can result in the following increases:











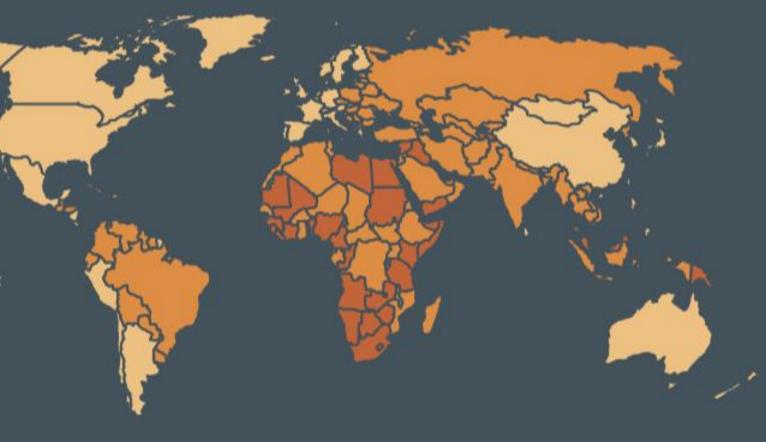




Every country in the world is affected by malnutrition

Countries with a burden of at least one of: childhood stunting, anaemia in adult women, overweight in adult women

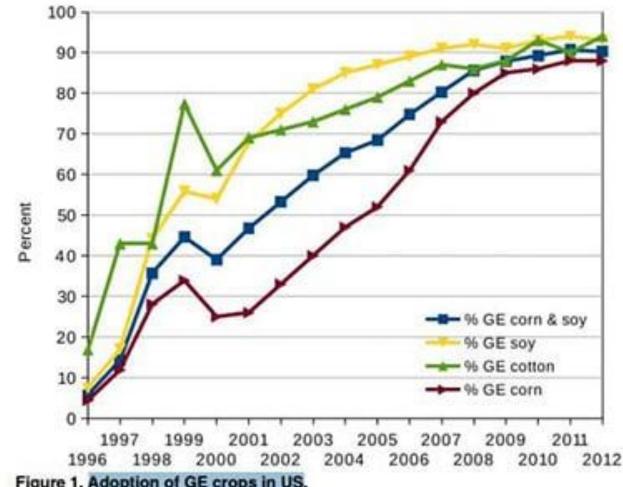
- 🔵 At least a single burden
- At least a double burden
- A triple burden

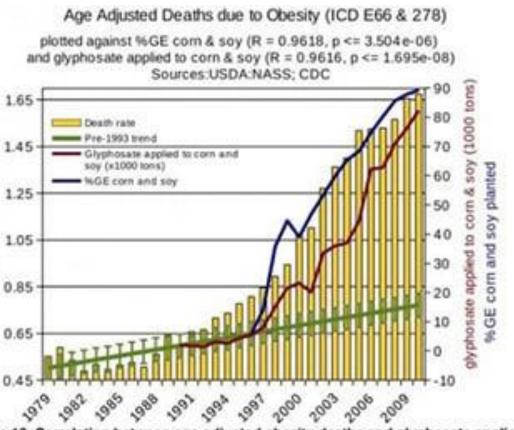




## **Dramatic Correlation Shown** Between GMOs and 22 Diseases

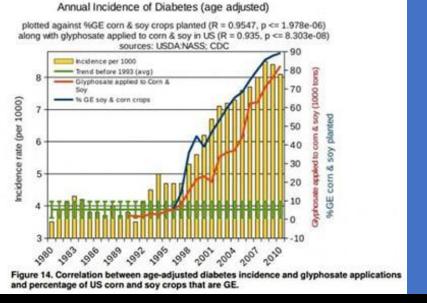
https://truthout.org/articles/dramatic-correlation-shown-between-gmos-and-22-diseases/?amp

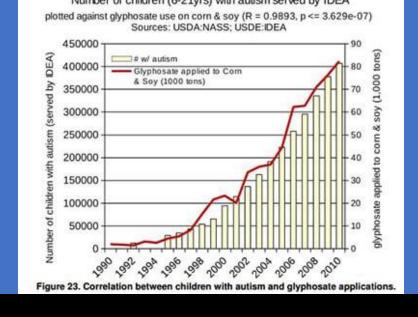




 13. Correlation between age-adjusted obesity deaths and glyphosate applications and intage of US corn and soy crops that are GE.

Figure 1. Adoption of GE crops in US.





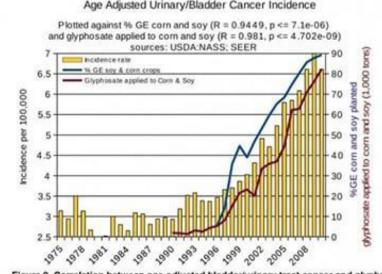
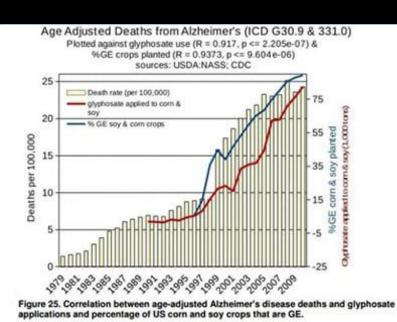
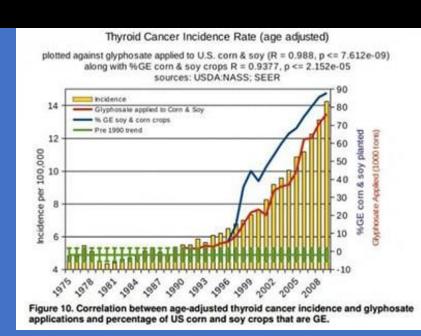


Figure 9. Correlation between age-adjusted bladder/urinary tract cancer and glyphosate applications and percentage of US corn and soy crops that are GE.

#### GMOs parallel Diabetes, Autism, Cancer, Hypertension





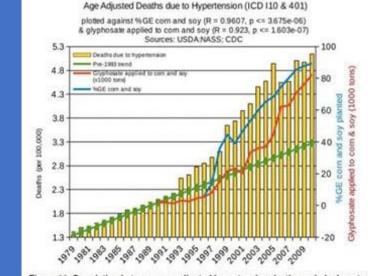
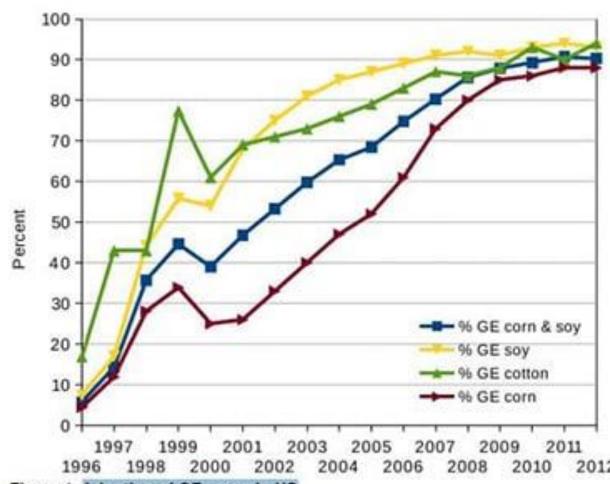


Figure 11. Correlation between age-adjusted hypertension deaths and glyphosate applications and percentage of US corn and soy crops that are GE.

#### Dramatic Correlation Shown Between GMOs and 22 Diseases

https://truthout.org/articles/dramatic-correlation-shown-between-gmos-and-22-diseases/?amp



Hypertension (R=0.923)

Stroke (R=0.925)

Diabetes Prevalence (R=0.971)

Diabetes Incidence (R=0.935)

Obesity (R=0.962)

Lipoprotein Metabolism Disorder (R=0.973)

Alzheimer's Disease (R=0.917)

Senile Dementia (R=0.994)

Parkinson's Disease (R=0.875)

Multiple Sclerosis (R=0.828)

Autism (R=0.989)

Inflammatory Bowel Disease (R=0.938)

Intestinal Infections (R=0.974)

End Stage Renal Disease (R=0.975)

Acute Kidney Failure (R=0.978)

Thyroid Cancer (R=0.988)

Liver Cancer (R=0.960)

Bladder Cancer (R=0.981)

Pancreatic Cancer (R=0.918)

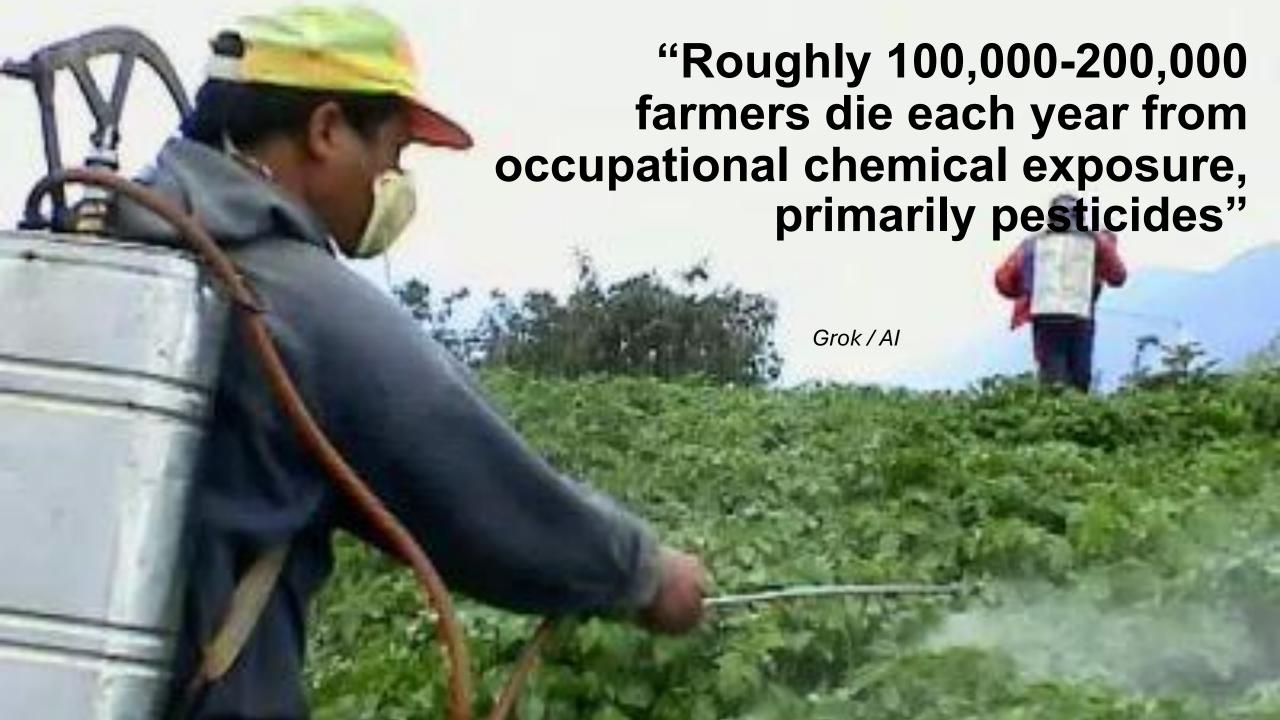
Kidney Cancer (R=0.973)

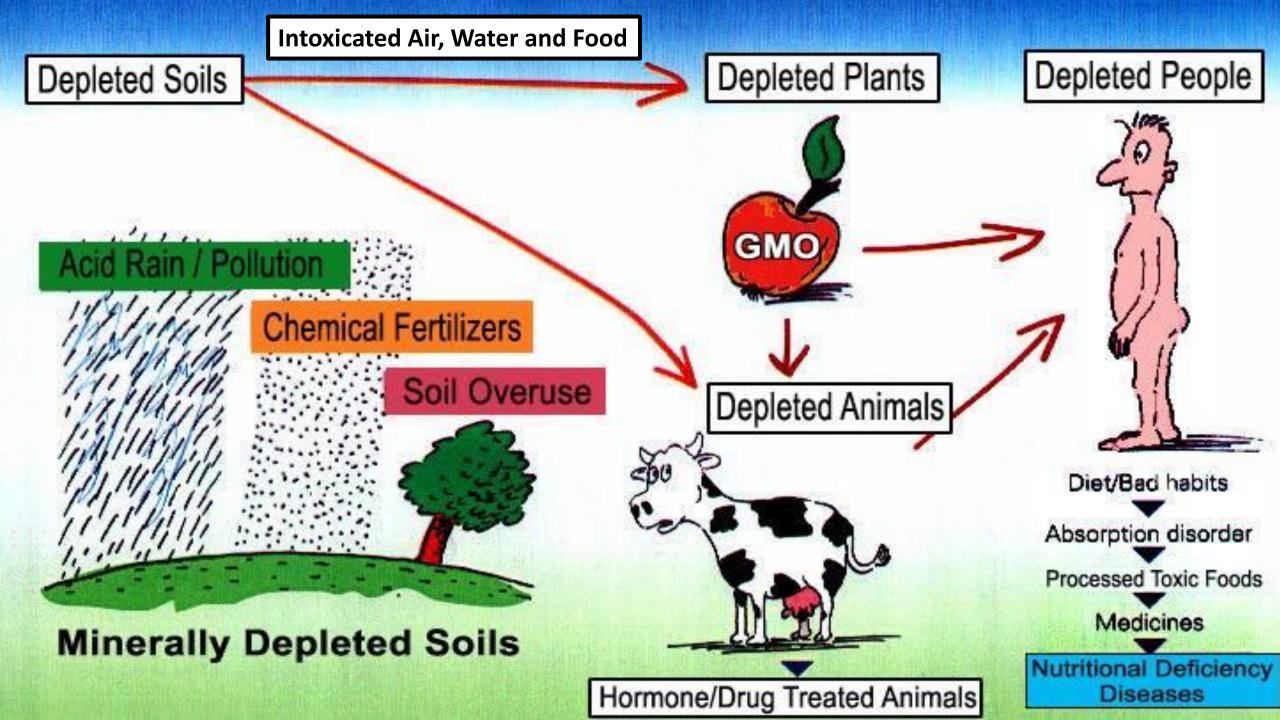
Myeloid Leukaemia (R=0.878)

Hepatitis C (R=0.946; correlated with % GE corn/soy planted)

Figure 1. Adoption of GE crops in US.

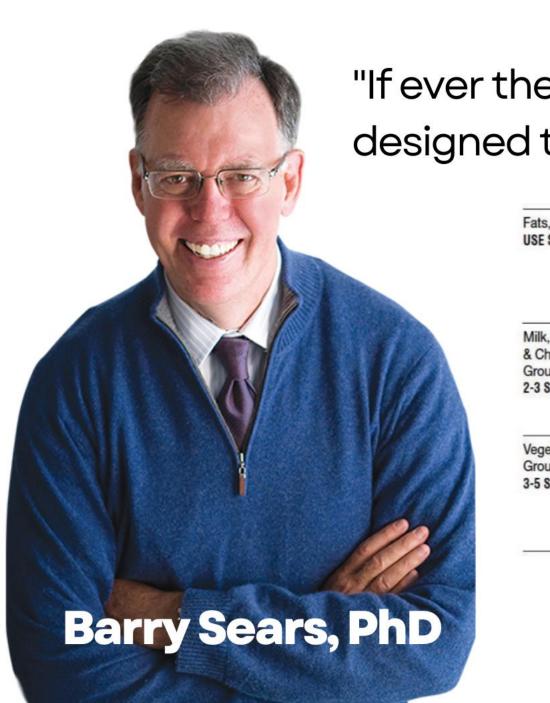




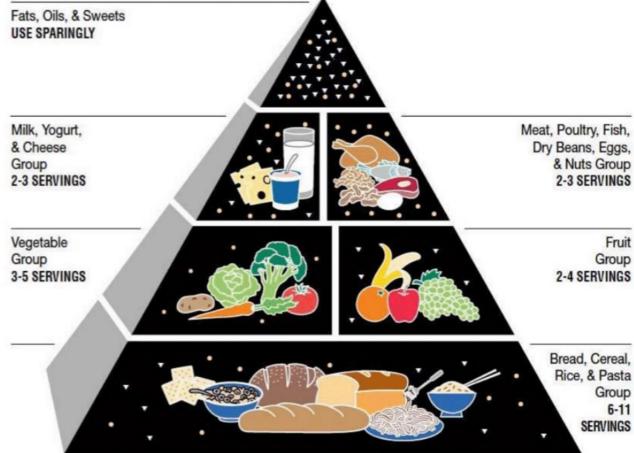


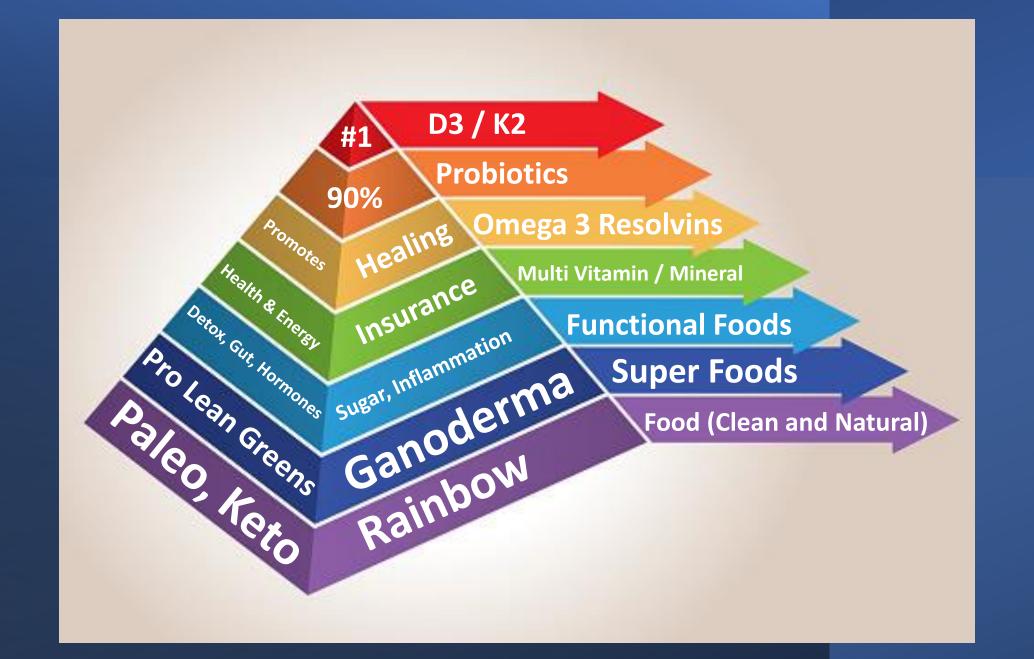






"If ever there were a terrorist like plot designed to destroy health, this would be it!"









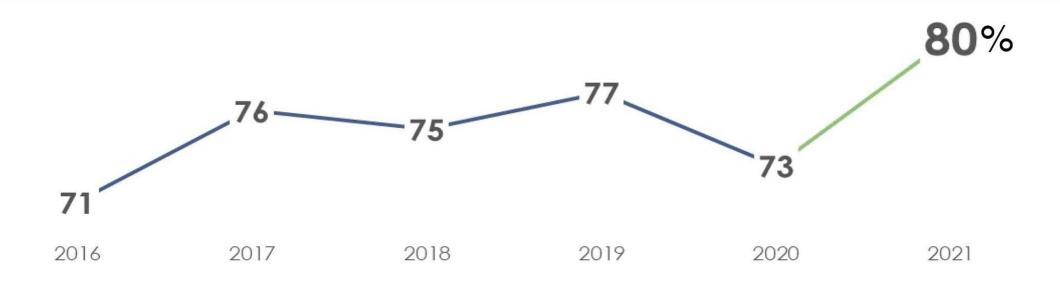
""Two case studies presented here indicate the need for supplementation as improvement in nutritional behavior could not replenish already exhausted nutrient reservoirs." Supplements are <u>advisable for everyone</u>"

PMID: 18029339





#### Four out of five Americans use dietary supplements.

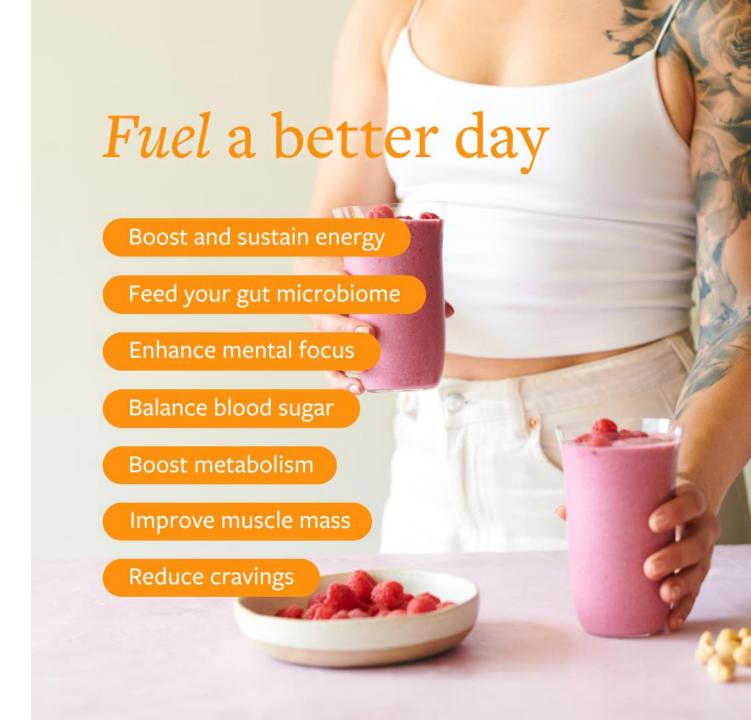


"A conservative estimate for the 2025 U.S. meal replacement shake market, blending these sources, is around \$5.5 billion to \$6 billion"

Grok / Al



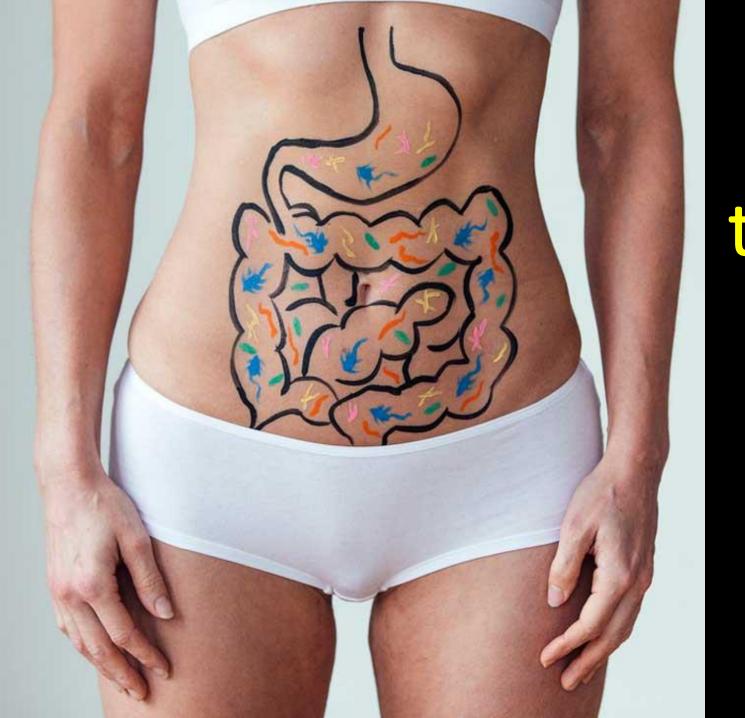
delicious, convenient and satisfying



# "Since 2017 alone, over \$20 billion has been invested in supplement companies by corporations like Bayer, Nestlé, Unilever, Procter & Gamble, and Clorox" *GROK / Al*







Do you have the guts to be healthy?



#### **Gut Health**

- 1. What are you eating?
  - 2. How often?
  - 3. How much?
- 4. How's your digestion?

- Nervous System (parasympathetic)



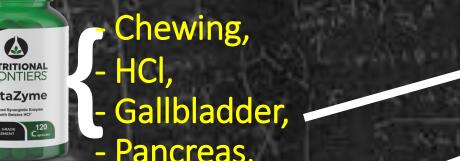
Pancreas,



- 6. How often do you poop?
- 7. Do you have a Leaky Gut?



Less Often Less food







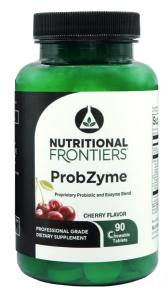


### Mal-Absorption

# Supplified to the state of the









### Mal-Nutrition















#### **Nutrition in America Today**

70% to 80% suboptimal nutrition

87% below vegetable intake,

75% below fruit intake, and

89% exceed sodium limits, while only

8% meet fruit and vegetable recommendations.



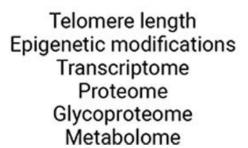
Grok





Muscle and Movement are not optional (ladies)

#### Top Predictors of Biologic aging and FRAILTY





Cardiorespiratory fitness (VO<sub>2max</sub>)
Muscle mass / Fat distribution
Muscle strength & power
Leisure-time activity
Functional frailty parameters

#### **Muscle Mass**

Grip Strength
Inflammatory
Markers
Telomere Length
Gait Speed
(top predictor)

PMID: 40267307 2025)

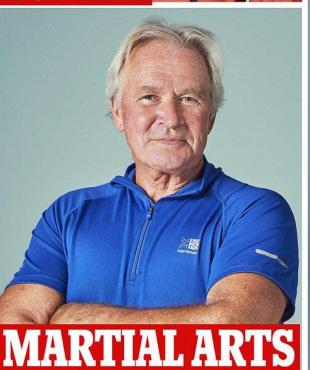
Mitochondrial Function



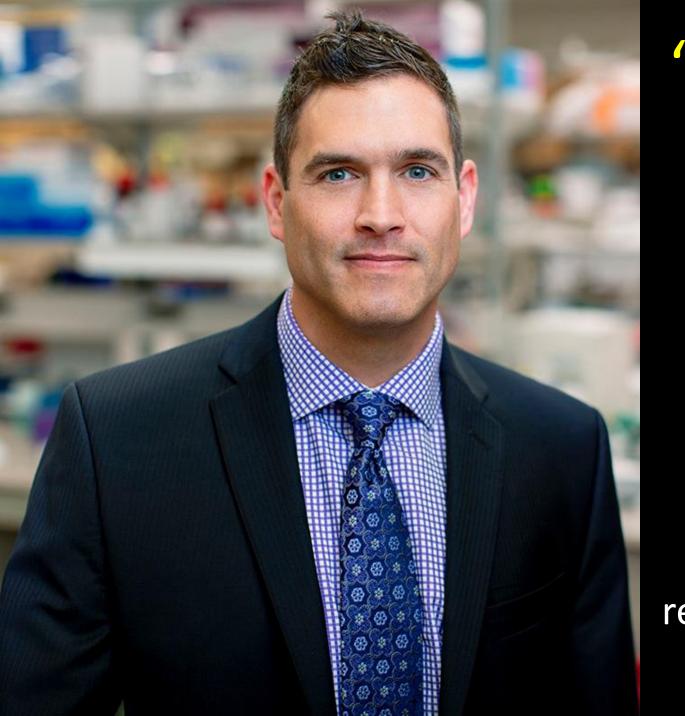






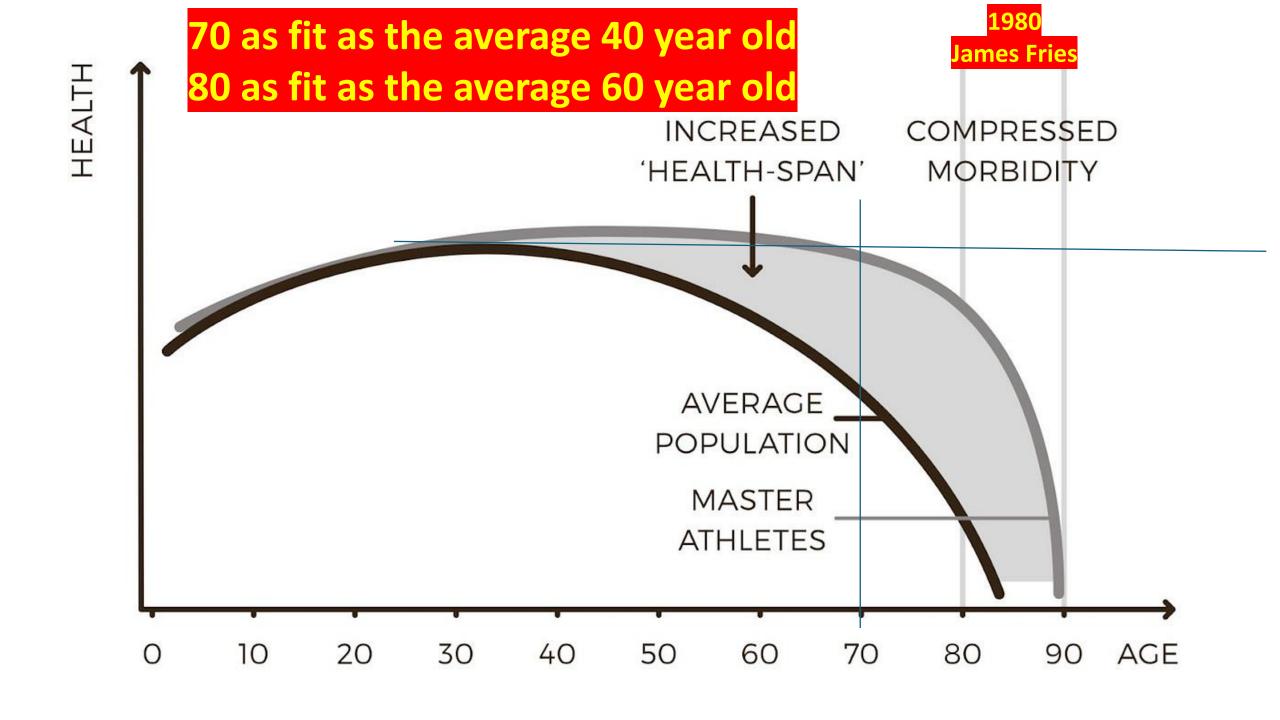






"Exercise is the best defense and repair strategy that we have to counter different drivers of aging"

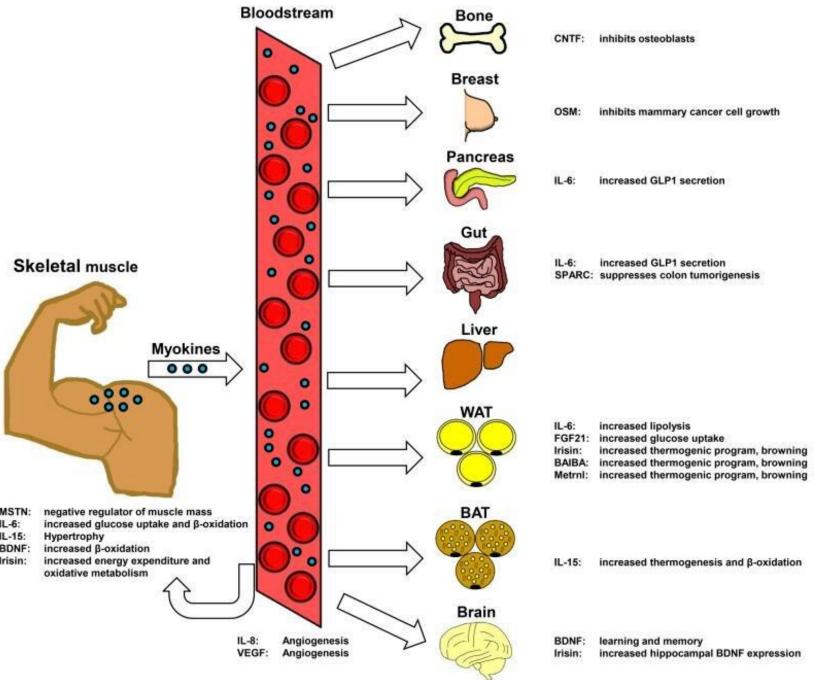
Nathan LeBrasseur, professor of physical medicine and rehabilitation at the Mayo Clinic in Rochester, Minn.





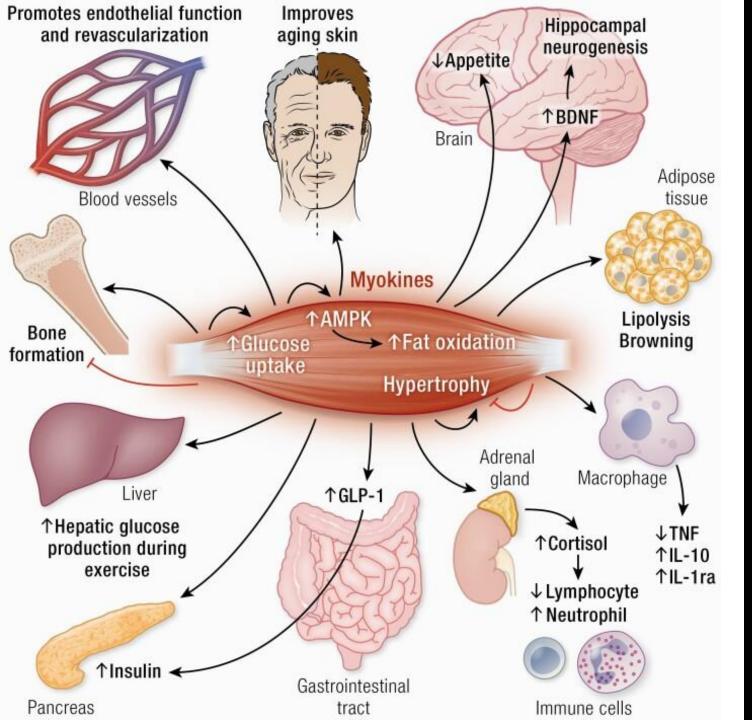
# 7 evidence-backed reasons to prioritize muscle as a lifelong health strategy

- 1. Metabolic Health and Insulin Sensitivity
- 2. Lower All-Cause Mortality
- 3. Improved Mobility and Independence
- 4. Bone and Joint Health
- **5. Enhanced Cognitive Function**
- 6. Anti-Inflammatory and Immune Benefits
- 7. Accelerated Recovery and Protein Reserve



https://www.newelementtraining.com/net-science/myokines

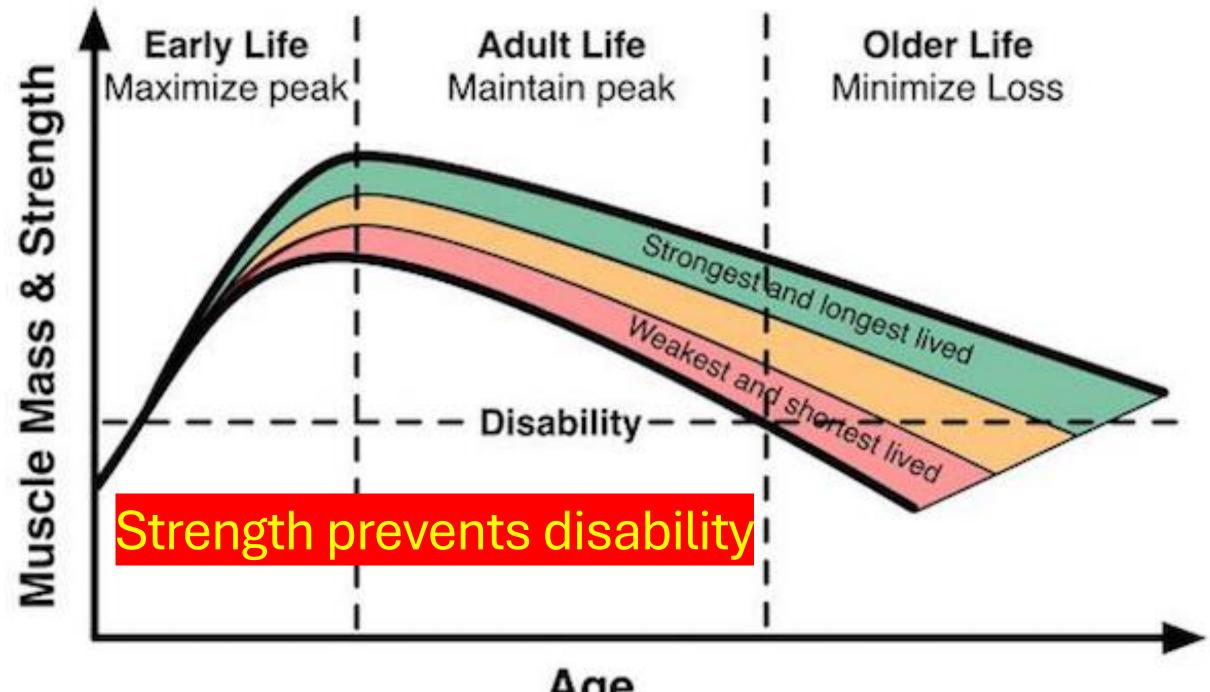
A myokine is one of several hundred cytokines or other small proteins and proteoglycan peptides that are produced and released by skeletal muscle cells in response to muscular contractions. They have autocrine, paracrine and/or endocrine effects; their systemic effects occur at picomolar(one-trillionth of a mole) concentrations. Wikipedia



"Myokines are defined as cytokines and other peptides that are produced, expressed and released by muscle fibers and exert either autocrine, paracrine, or endocrine effects

Myokines mediate communication between muscle and other organs, including brain, adipose tissue, bone, liver, gut, pancreas, vascular bed, and skin, as well as within the muscle itself

PMID: <u>32393961</u> 2020



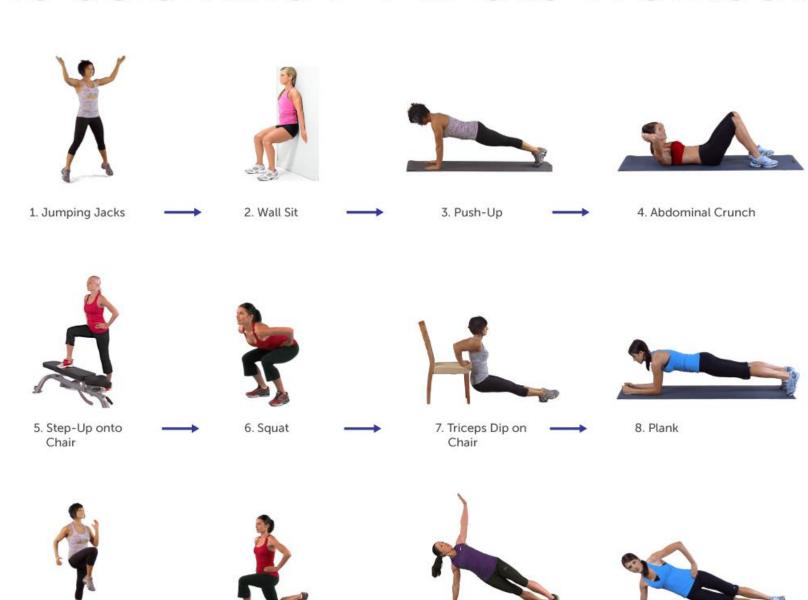
Age

#### The Scientific 7-Minute Workout

Stronger in 7 minutes

30 seconds each

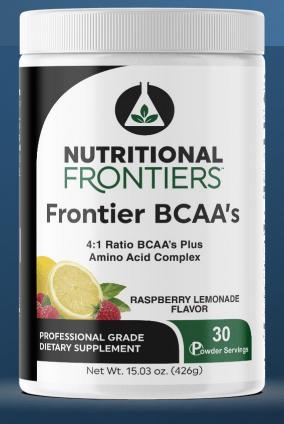
transition quickly between exercises



### Anabolic Support









# 

Villes

#### TABATA

#### Workout

#### Part 1:



- 1. Jump Squats: 20 seconds
- 2. Rest: 10 seconds
- 3. Push Ups: 20 seconds
- 4. Rest: 10 seconds
- 5. Repeat 4x



#### Part 2:



- 1. Box Jumps: 20 seconds
- 2. Rest: 10 seconds
- 3. Dips: 20 seconds
- 4. Rest: 10 seconds
- 5. Repeat 4x



#### Part 3:



- 1. Squat Press: 20 seconds
- 2. Rest: 10 seconds
- 3. Mountain Climbers: 20 seconds
- 4. Rest: 10 seconds
- 5. Repeat 4x



#### FITTER IN

## 4 MINUTES PER DAY

#### **Endurance Athletes**

#### <u>Oxygen</u>

Anemia

- Iron (HCl, poor diet)
  - B6, B9, B12
  - Low Nitric Oxide
    - Low Nitrates
  - Inflammmation

#### Water and Minerals

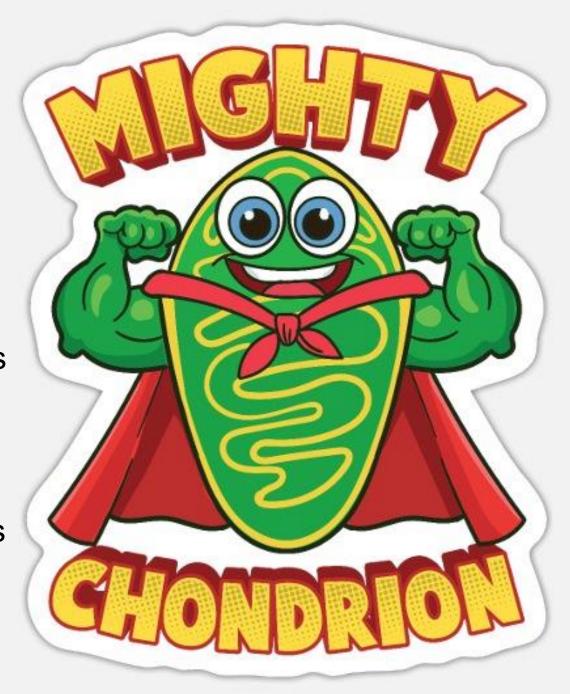
#### Mitochondria Efficiency

Mito Nutrients
Lipoic Acid
Carnitine - Methylation

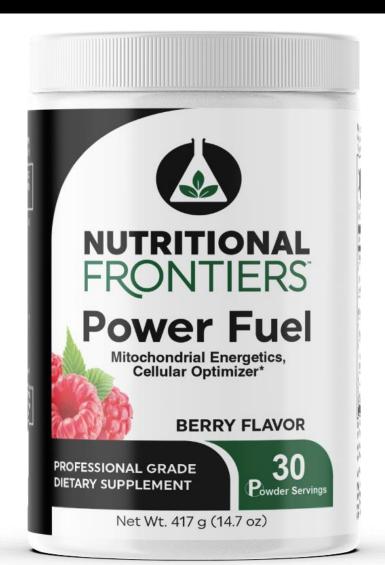


#### **Mitochondria Nutrition**

- 1. Vitamin B2 (Riboflavin) for FAD/FADH2.
- 2. Vitamin B3 (Niacin) for NAD+/NADH.
- 3. Vitamin B5 (Pantothenic Acid) for coenzyme A.
- 4. Iron for cytochromes and iron-sulfur clusters.
- 5. Copper for Complex IV.
- 6. Magnesium for ATP synthase and Krebs cycle enzymes.
- 7. Sulfur for iron-sulfur clusters.
- 8. Coenzyme Q10 electron shuttle (can be dietary or synthesized).
- 9. Vitamin C supports iron/copper and acts as an antioxidant.
- 10. Vitamin E protects mitochondrial membranes.



### Cellular Energy Enhancers







"fitter individuals might have certain advantages in business due to

better mental performance, and societal biases,

success in business is influenced by a complex array of factors."

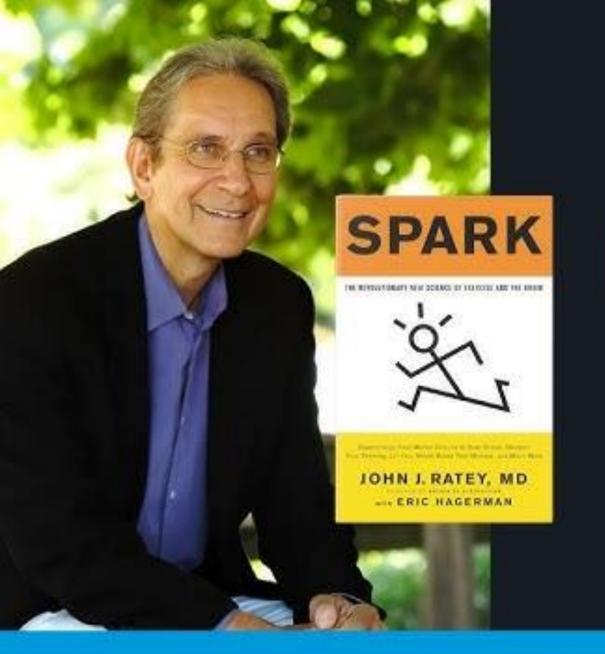
Grok / X AI



**Magnificent 7 of Trained Energy** 

- 1. Improved Fuel Utilization
- 2. Enhanced Oxygen Delivery
- 3. Lower Energy Cost of Movement
- 4. Increased Mitochondrial Density
- 5. Enhanced Enzyme Activity
- 6. Better Coupling Efficiency:
- 7. Higher Fat Oxidation Capacity













## MOVEMENT MEDICINE

John Ratey M.D. - Harvard Psychiatry Professor

# SPARK

THE REVOLUTIONARY

NEW SCIENCE OF EXERCISE

AND THE BRAIN



Supercharge Your Mental Circuits to
Beat Stress, Sharpen Your Thinking, Lift Your Mood,
Boost Your Memory, and Much More

JOHN J. RATEY, MD

with ERIC HAGERMAN

### Exercise creates similar reactions to

Ritalin (Focus)

Serotonin (Happiness or Anti-Depressant)

Miracle Grow (BDNF)





#### NeuroToxic World

1 in 3 Americans face mental health challenges and

neurological disorders are the leading cause of disability (WHO, 2022)



"A healthy brain has near optimal functioning across

cognitive,

sensory,

social-emotional,

behavioral, and

motor domains,

allowing individuals to realize their full potential throughout life."



# 10–20% of the U.S. population likely have a healthy brain

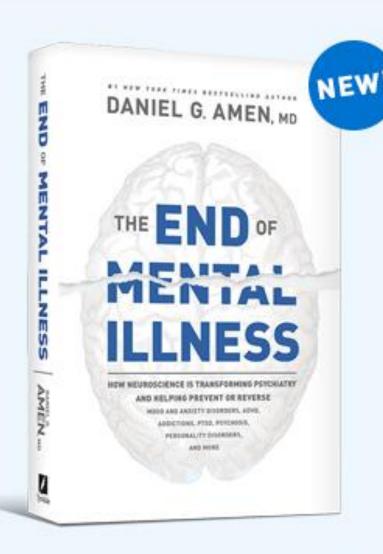
This is constrained by

high SAD adherence (70-80%),

low exercise rates (74% sedentary), and

prevalent disorders (30-40% at risk)

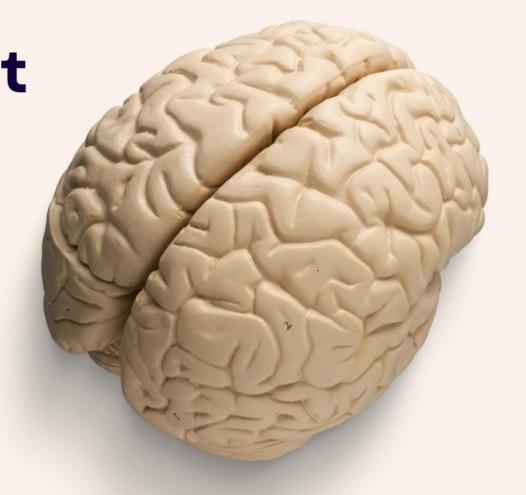


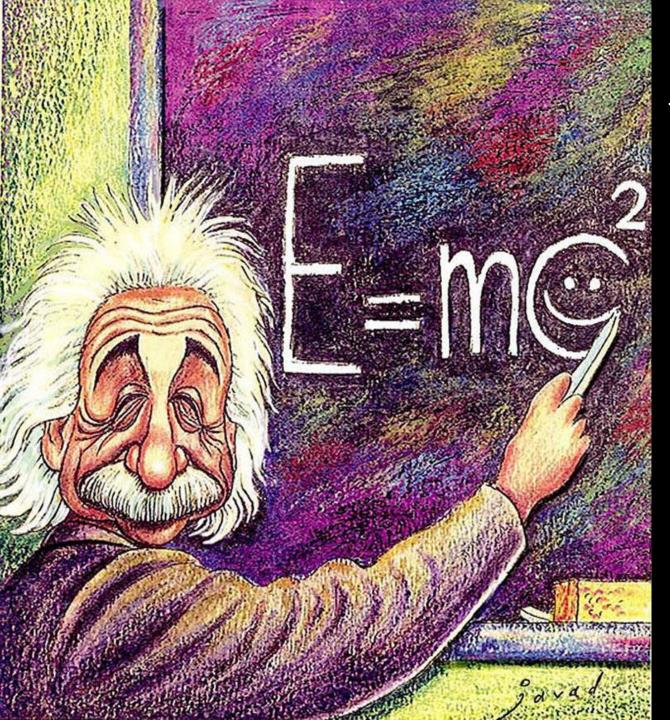


# WHAT IF MENTAL HEALTH WAS BRAIN HEALTH?

### The brain is the most

Nutrient dependent Energy dependent Stress vulnerable Toxins vulnerable organ.





Nutrient: Top-tier, rivaled by liver. Its picky needs and rapid dysfunction without them (e.g., scurvy's mental fog) stand out.

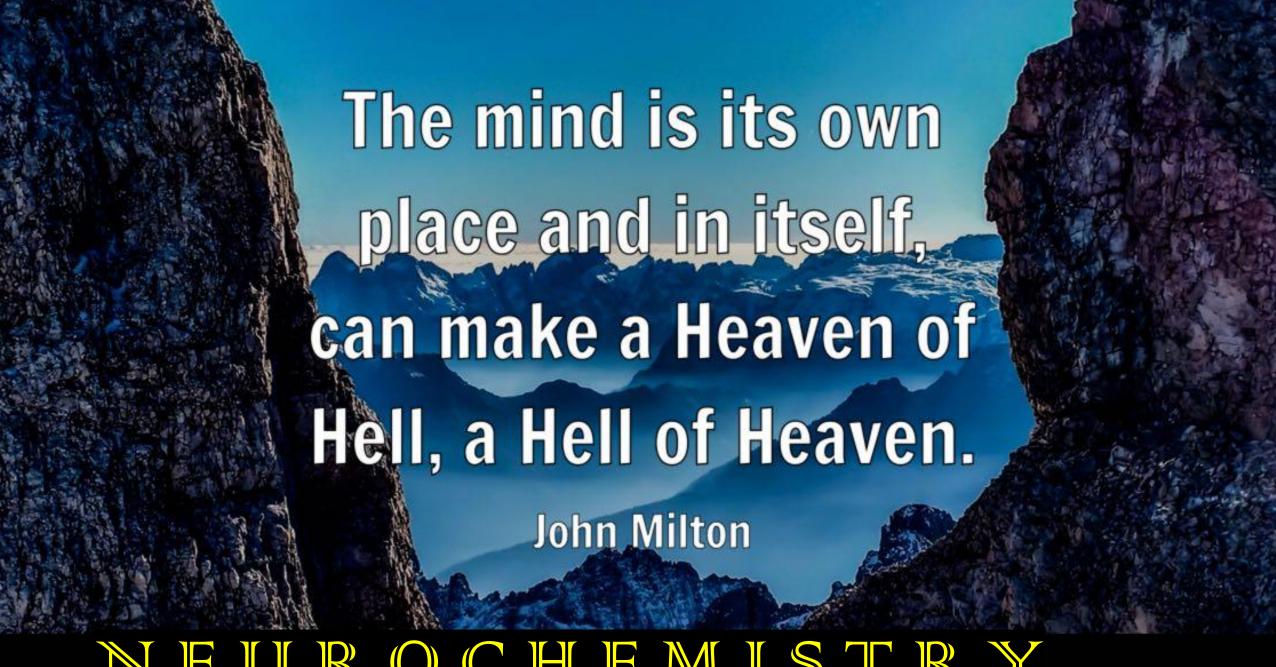
Energy: Likely the most, per mass and constancy

heart's per-gram rate is higher, but brain's total draw is unmatched.

Stress: Among the most—adrenals tire first (maybe),

but brain's structural and functional fallout (e.g., depression) is profound.

Toxin: Very high, though liver's exposure is greater; brain's permanence of damage (e.g., Parkinson's from pesticides) seals it.



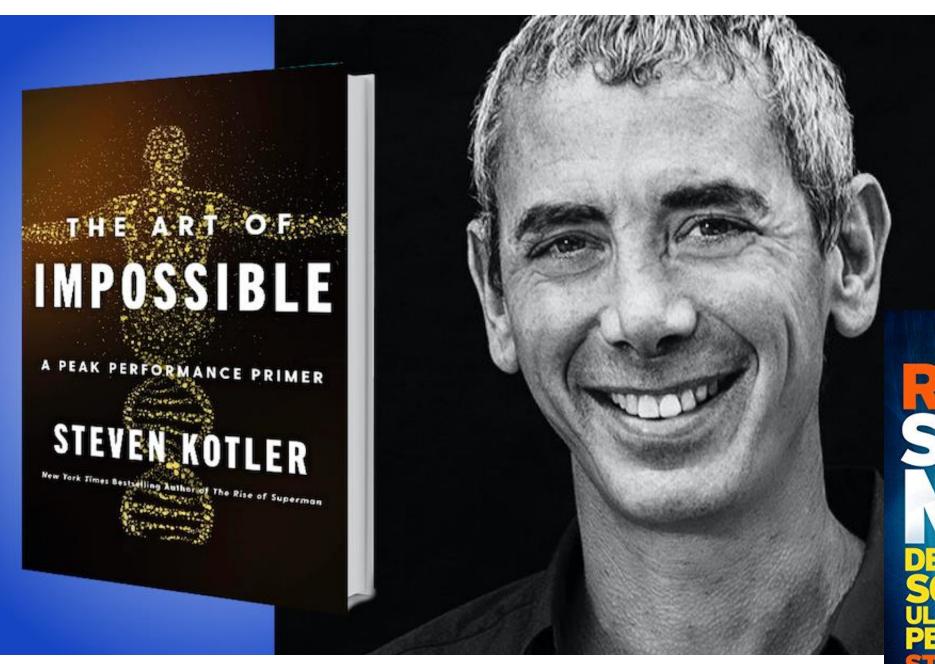
EUROCHEMISTRY

While flow can serve as a therapeutic tool to improve mood and cognition, it doesn't address the root biological or environmental causes of mood disorders.



The flow state is not the direct opposite of a mood disorder but represents a contrasting mental experience characterized by focus, joy, and engagement, which opposes many symptoms of mood disorders like depression or anxiety.



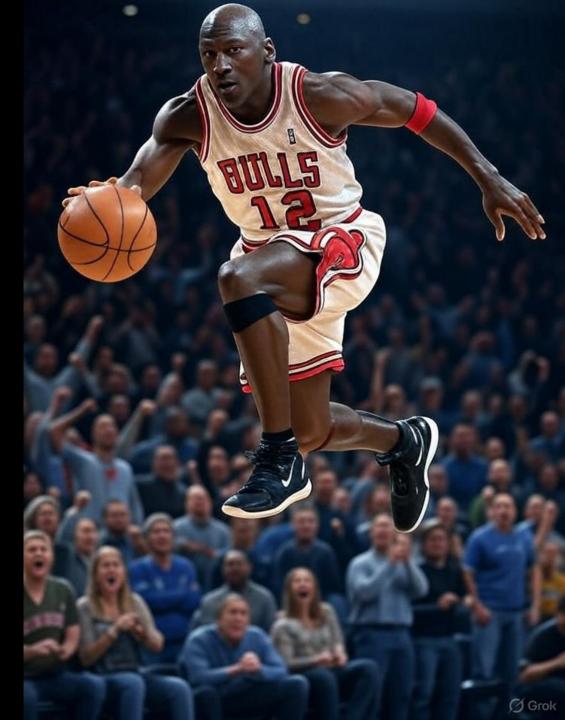


THE RISE OF SUPER SUPER A SUPER SCIENCE OF ULITIMATE HUMAN PERFORMANCE STEVEN KOTLER



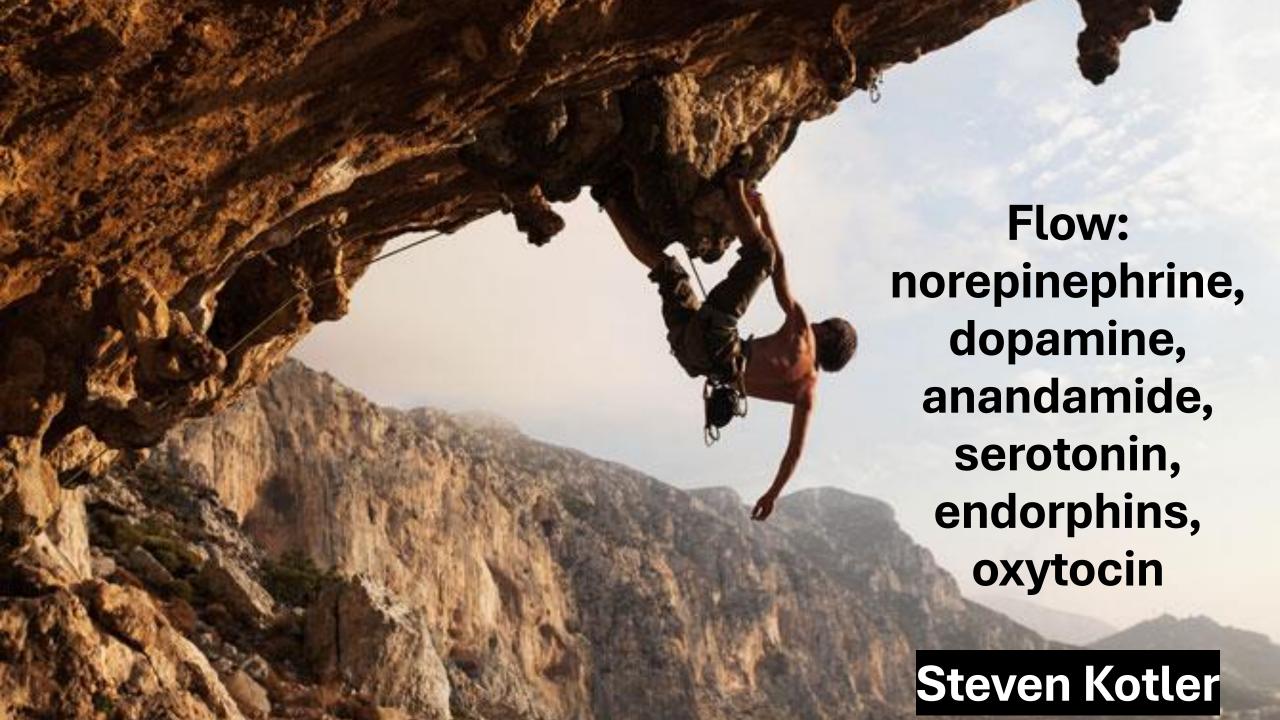
## FLOW STATE

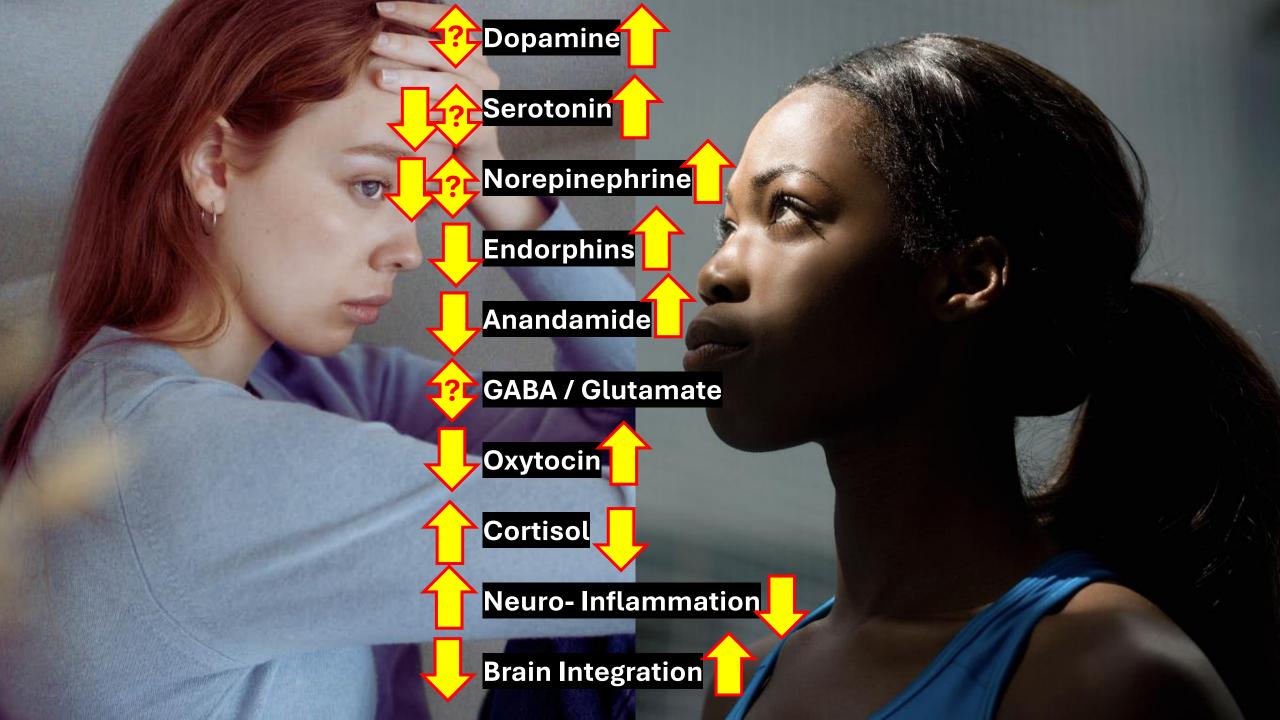
"an optimal state of consciousness where individuals feel and perform their best, characterized by deep focus, effortless action, and a sense of timelessness."





"companies could see a productivity boost of up to 500% during flow states" Monitask.com (published October 8, 2024)





### NeuroChemistry Flow vs Mood Disorders

Aspect	Flow State	Mood Disorders
Dopamine	Elevated: Dopamine surges in reward pathways (e.g., nucleus accumbens, prefrontal cortex) enhance motivation, focus, and pleasure during flow. This drives the intrinsic reward of the task (Journal of Positive Psychology, 2018).	Dysregulated: Low dopamine in depression (reduced reward processing); erratic in bipolar disorder (high in mania, low in depressive phases).  Dopamine dysfunction impairs motivation and pleasure (American Journal of Psychiatry, 2019).
Serotonin	Stable/Moderately Increased: Serotonin supports emotional stability and focus during flow, maintaining a calm yet engaged state. Likely involves balanced 5-HT1A receptor activity (Neuroscience Letters, 2017).	Reduced or Dysregulated: Low serotonin in depression and anxiety disrupts mood regulation and increases negative affect. In bipolar disorder, serotonin fluctuates across mood states (Molecular Psychiatry, 2020).
Norepinephrine	Optimized: Moderate norepinephrine levels enhance alertness and arousal, keeping individuals "in the zone" without overstimulation. Flow requires an optimal arousal state (Frontiers in Psychology, 2014).	Dysregulated: High norepinephrine in anxiety fuels hyperarousal and worry; low levels in depression contribute to fatigue and apathy. Bipolar mania may involve excessive norepinephrine (Biological Psychiatry, 2018).
Endorphins	Increased: Endorphins contribute to the euphoric "high" in flow, especially during physically or mentally demanding tasks (e.g., sports, creative work). Linked to pain reduction and positive affect (Journal of Sports Sciences, 2019).	Reduced: Lower endorphin levels in depression reduce positive affect and increase pain sensitivity. Less clear in anxiety or bipolar disorder, but chronic stress may deplete endorphins (Pain Medicine, 2020).
GABA/Glutamate Balance	Balanced: Flow involves a balance of excitatory (glutamate) and inhibitory (GABA) neurotransmitters, supporting focused attention without overstimulation. Prefrontal cortex activity is optimized (Neurolmage, 2016).	Imbalanced: Reduced GABA in anxiety leads to excessive neural excitability; glutamate dysregulation in depression and bipolar disorder disrupts mood stability and cognition (Journal of Affective Disorders, 2021).
Cortisol (HPA Axis)	Low/Stable: Flow is associated with reduced cortisol, reflecting low stress and a relaxed yet focused state. The HPA axis is minimally activated (Psychoneuroendocrinology, 2017).	Elevated or Dysregulated: Chronic HPA axis overactivation in depression and anxiety increases cortisol, exacerbating stress and neuroinflammation. Bipolar disorder shows cortisol fluctuations (Neuropsychopharmacology, 2019).
Neuro- inflammation	Minimal: Flow is not directly linked to neuroinflammation, but positive emotional states may reduce pro-inflammatory cytokines (e.g., IL-6, TNF-α), supporting neural health (Frontiers in Immunology, 2021).	Elevated: Neuroinflammation (high IL-6, TNF-α) is a key factor in mood disorders, particularly treatment-resistant depression. It disrupts neurotransmitter systems and neural circuits (Journal of Neuroinflammation, 2021).
Brain Regions	Coordinated Activation: Flow engages prefrontal cortex (focus, decision-making), nucleus accumbens (reward), and temporoparietal junction (reduced self-consciousness). Decreased default mode network (DMN) activity minimizes rumination (Nature Communications, 2018).	Dysregulated Activity: Depression involves hypoactive prefrontal cortex and hyperactive amygdala (negative emotions). Anxiety shows overactive amygdala and insula. Bipolar disorder fluctuates between hyper/hypoactivity in these regions (Biological Psychiatry, 2020).











### PERSONALIZED FLOW

"chocolate stimulates all major brain chemicals of flow state dopamine, noradrenaline, serotonin, endorphins, anandamide; improves blood circulation in the brain, decreases inflammation - all the great things that the brain needs to focus for longer, to get into flow states and to deliver creative insights."

https://notepd.com/idea/4-foods-i-eat-before-flow-state-deep-focus-work-rr4ln



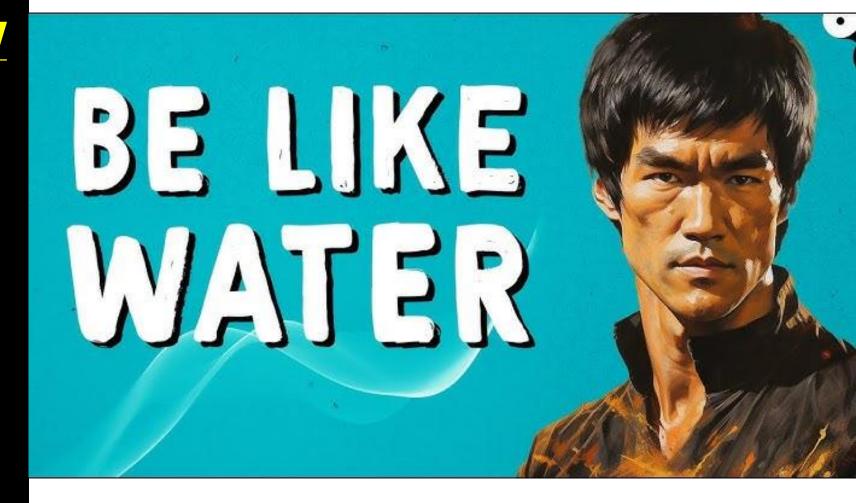


#### THE BENEFITS OF FLOW STATE

- 1. HEIGHTENED CONCENTRATION
  - 2. SENSE OF CLARITY
- 3. LESS MIND-BASED OBSCTACLES
  - 4. SENSE OF ECSTASY
    - 5. HAPPINESS
  - 6. HIGHER PRODUCTIVITY
  - 7. INCREASED SATISFACTION
- 8. IMPROVED EMOTIONAL REGULATION

## The top five FLOW strategies

- 1. Nutrition
- 2. Exercise
  - 3. Sleep
- 4. Mindfulness
- **5. Social Connections**



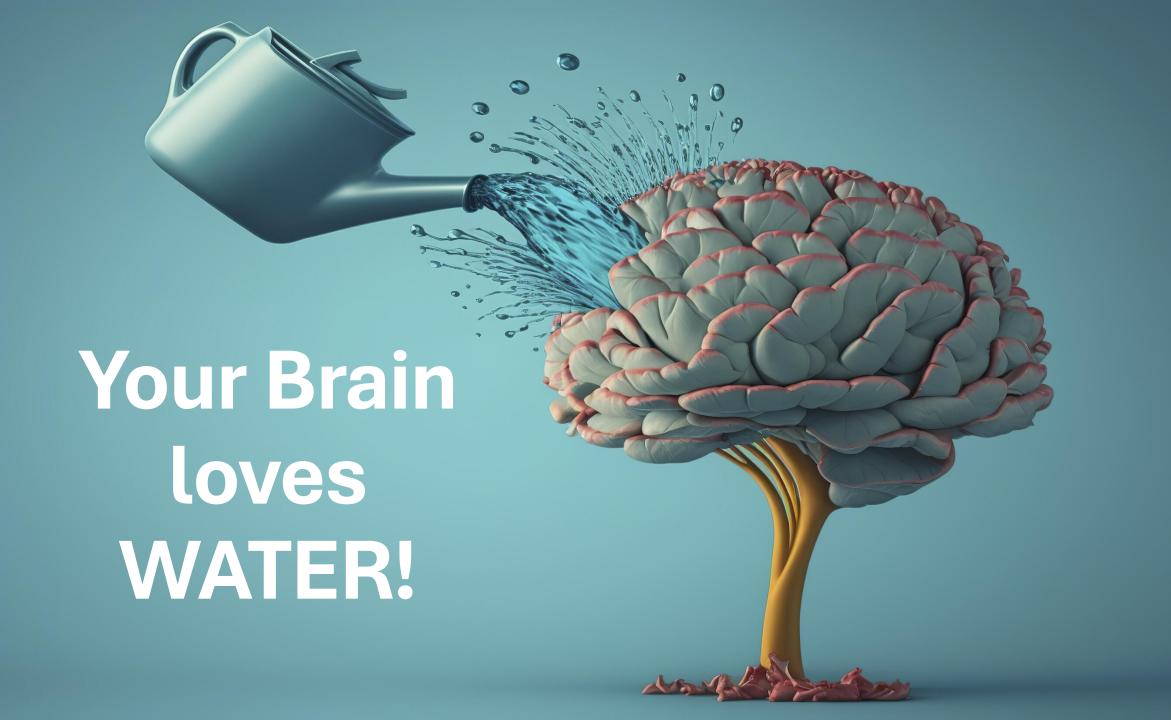
#### The top nutrients to enhance flow

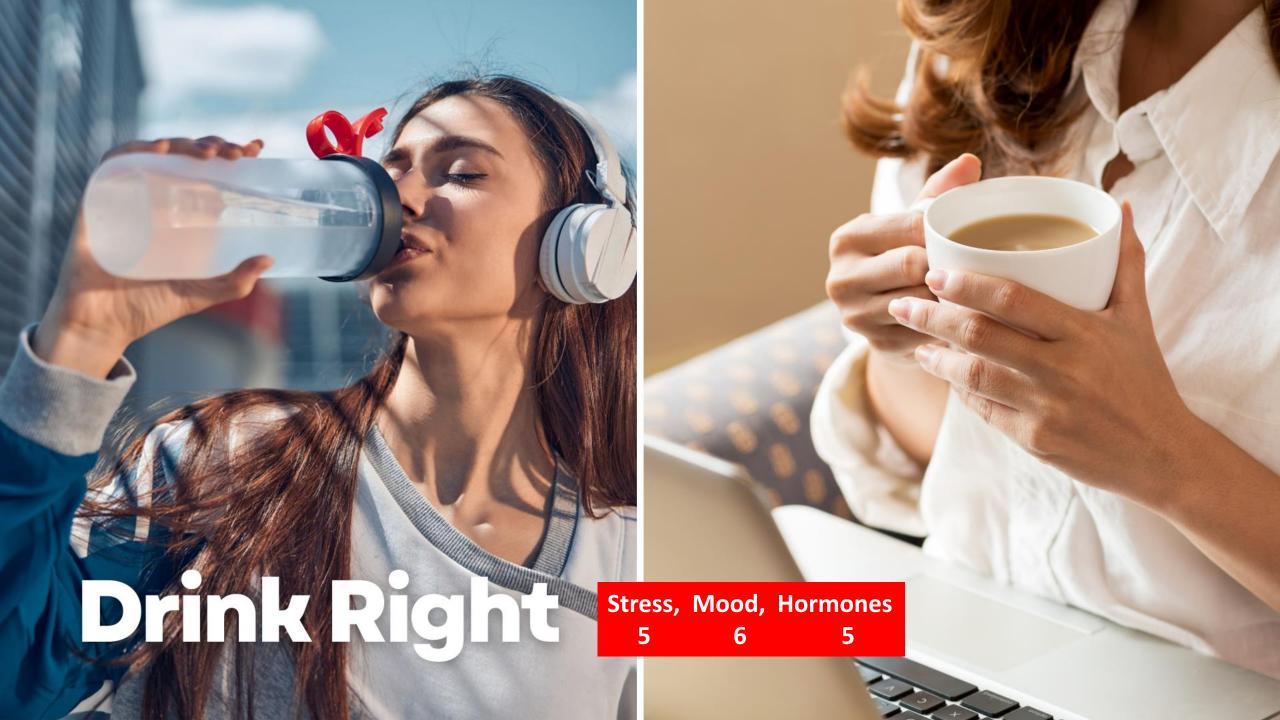
- 1. Water,
- 2. Omega-3 fatty acids,
- 3. Magnesium,
- 4. B Vitamins,
- 5. Antioxidants,
- 6. Vitamin D, and
- 7. Caffeine

boosting focus, resilience, and performance by 10–30%.

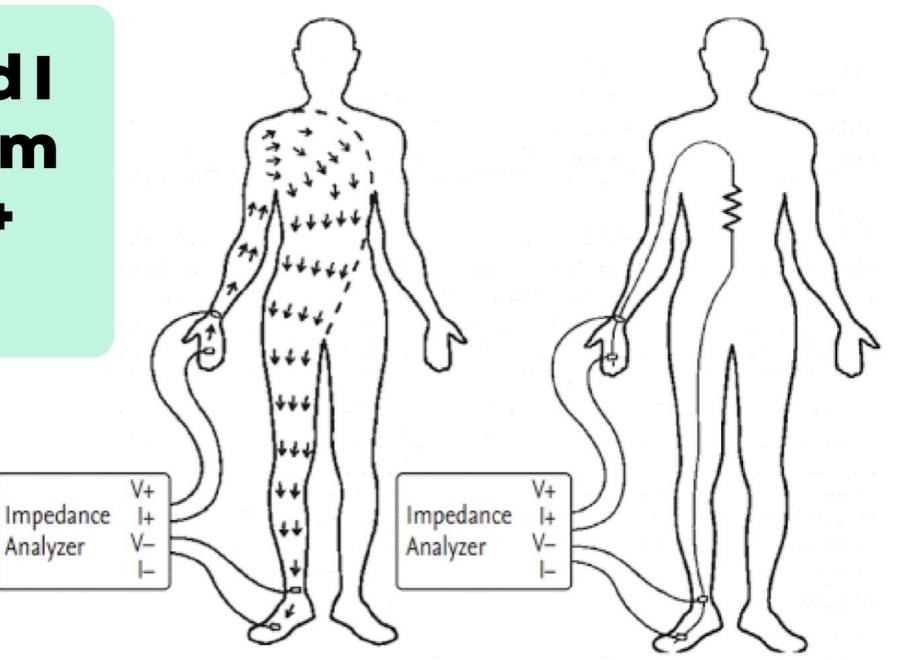
Multi







What did I learn from 10,000+ tests?

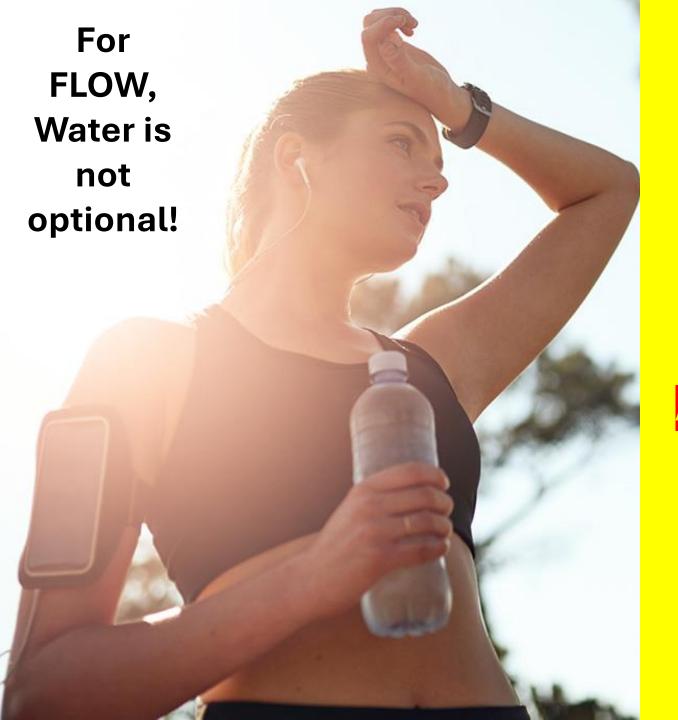




"dehydration levels of 1% may adversely affect cognitive performance."

J Am Coll Nutr. 2007 Oct;26(5 Suppl):555S-561S. PMID: 17921465 below





#### **Hydration and Performance**

"2% body weight loss reduces

### SLOWER DECISION-MAKING AND REDUCED ACCURACY

in tasks requiring concentration

**AEROBIC PERFORMANCE BY 3-7%,** 

DECREASE

MUSCLE STRENGTH (2–5%) and

ANAEROBIC POWER by up to 10%,

Grok Al 6-2-25

# Water How much to drink

(or eat)

#### **How Much Water?**

	1 - 1	
120 lbs		60 oz
140 lbs		70 oz
160 lbs	/	80 oz
180 lbs		90 oz
200 lbs		100 oz
220 lbs		110 oz
240 lbs		120 oz
260 lbs		130 oz
280 lbs		140 oz
300 lbs		150 oz
	, n	



#### **DeHydration and Cognitive Decline**

Dehydration (% BWL)	Fluid Loss (Liters, for 70 kg)	Cerebral Oxygenation (% Change from Baseline)	Cognitive Decline (% Impairment in Decision-Making)
	0 1:40.00	0% (100%	0% (no
0% (Baseline)	0 liters	baseline)	impairment)
1%	0.7 liters	-4%	3%
2%	1.4 liters	-10%	8%
3%	2.1 liters	-15%	12%
4%	2.8 liters	-20%	20%



#### SUPPLEMENT FACTS

Serving Size: 1 Scoop (13.9 g) Servings Per Container: 30 Scoops

**Amount Per Serving** 

Calcium	150 mg
(As calcium citrate and dicalcium phosphate)	
Chloride (as sodium chloride)	380 mg
Chromium (as chromium nicotinate)	200 mcg
Magnesium (as magnesium bisglycinate chelate)	300 mg
Phosphorus (as dicalcium phosphate)	60 mg
Potassium (as potassium gluconate)	90 mg
Sodium (as sodium chloride)	250 mg
D-Ribose	5000 mg
Bromelain	1000 mg
Protease	1000 mg
L-Carnitine	500 mg
N, N-Dimethylglycine HCl (DMG)	300 mg
L-Citrulline	200 mg
L-Taurine	200 mg
L-Arginine HCl	200 mg
Rhodiola rosea extract	100 mg
(Standardized to 1% salidrosides)	
CoQ10	50 mg

Other ingredients: Citric Acid, Sodium Chloride, Natural Flavoring, Malic Acid, Silicon Dioxide, Stevia, Beta Carotene (For Color)

Produced in a facility that also processes soy, fish, shellfish, milk, peanuts, tree nuts, wheat, and eggs.

#### Top 3 Brain Benefits of Omega-3 Fatty Acids

## 1. Enhanced Cognitive Function and Memory

## 2. Reduced Inflammation and Mood Stabilization Benefit:

3. Protection Against Cognitive Decline and Neurodegeneration

## BRAIN FOOD

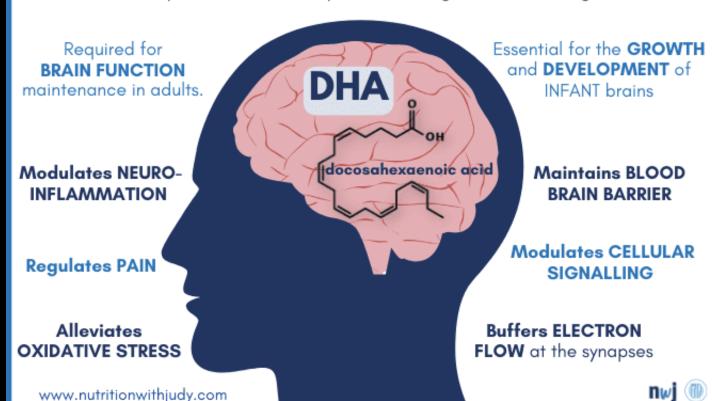
DHA is ESSENTIAL for optimal health

nutrition⊮illiudv

97% of the omega-3 fatty acid in the brain is DHA

#### CRITICAL TO CORTEX DEVELOPMENT

the part of the brain responsible for higher order thinking.



#### **Comparative Advantages of Resolvins**

Targeted Action: resolvins specifically resolve inflammation, offering a more direct impact on brain pathologies (Serhan & Levy, 2018, *Annual Review of Pathology*).

Potency: Resolvins act at nanomolar concentrations compared to the micromolar effects of EPA and DHA (Spite & Serhan, 2010, Journal of Clinical Investigation).

Disease-Specific Benefits: Resolvins demonstrate superior effects in acute brain injuries and chronic neurodegenerative conditions.

Grok / Al



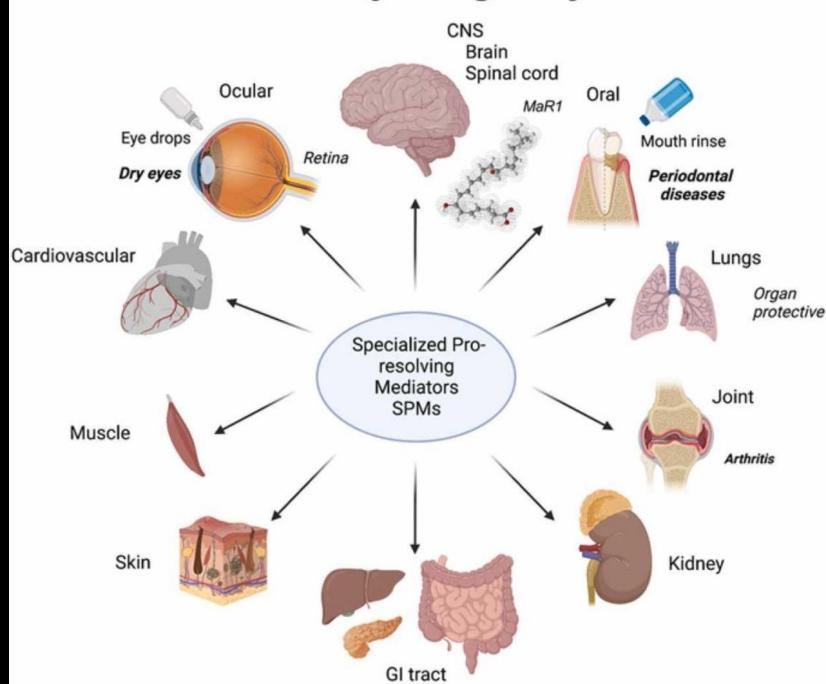
# "The resolvin form of omega-3 likely enhances flow more than EPA and DHA

on a per-unit basis due to its higher potency in resolving inflammation (e.g., 40–80% leukocyte reduction) and potential to clear cognitive barriers...

However, its effectiveness is limited by lower natural production and lack of direct human flow studies..."

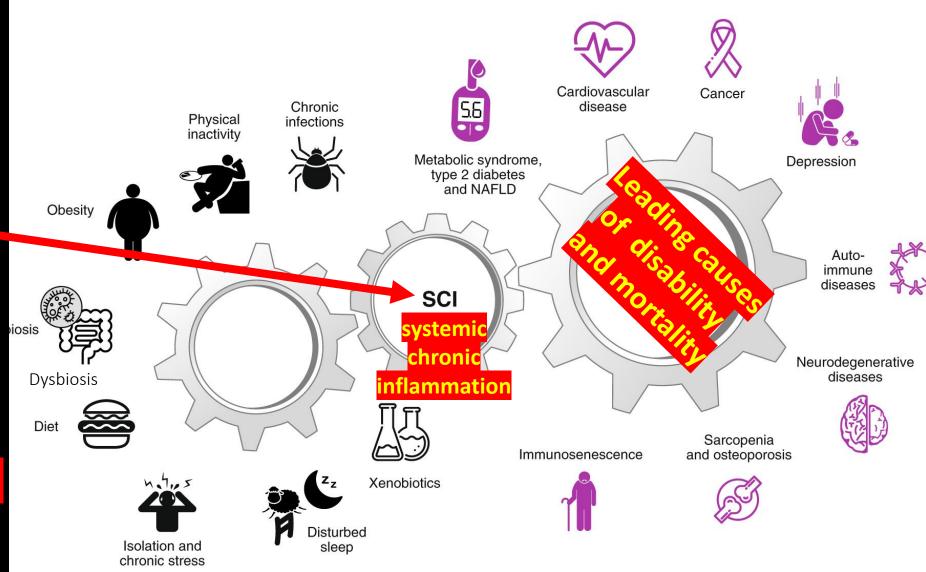
**Grok / Al** 

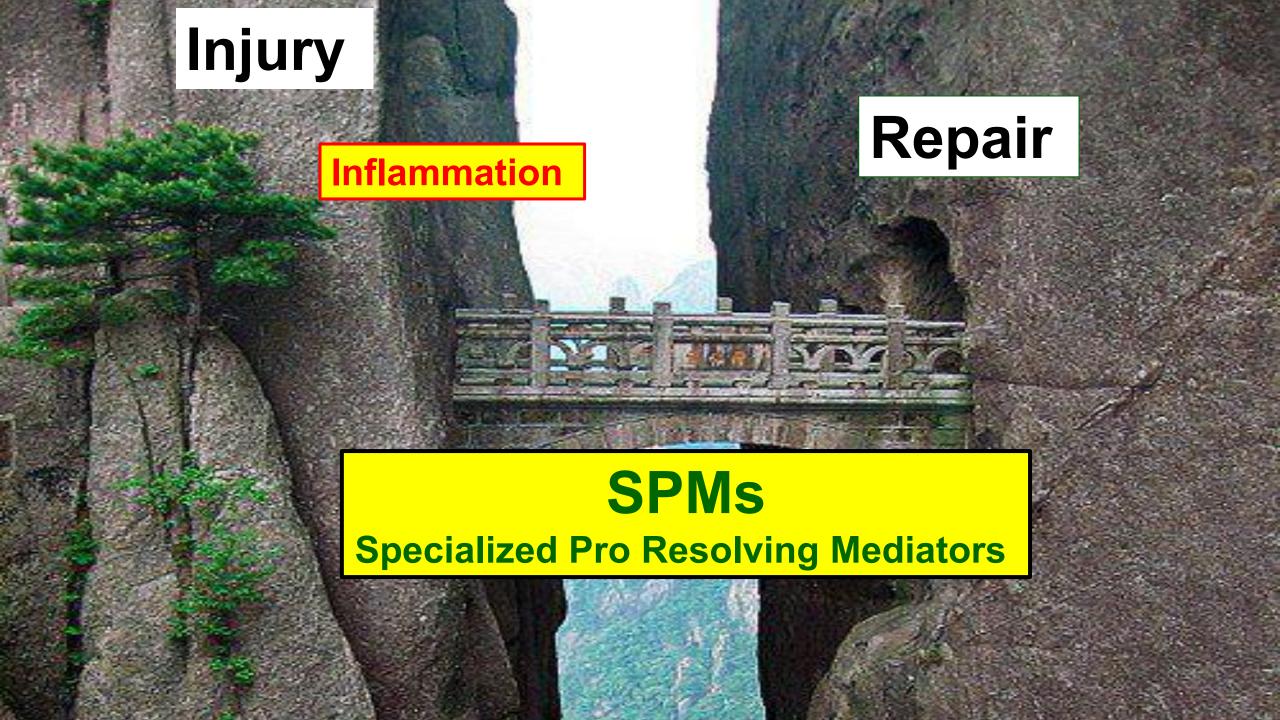
#### SPMs and Major Organ Systems



"Although intermittent increases in inflammation are critical for survival during physical injury and infection, recent research has revealed that certain social, environmental and lifestyle factors can promote systemic chronic inflammation (SCI) that can, in turn, lead to several diseases that collectively represent the leading causes of disability and mortality worldwide"

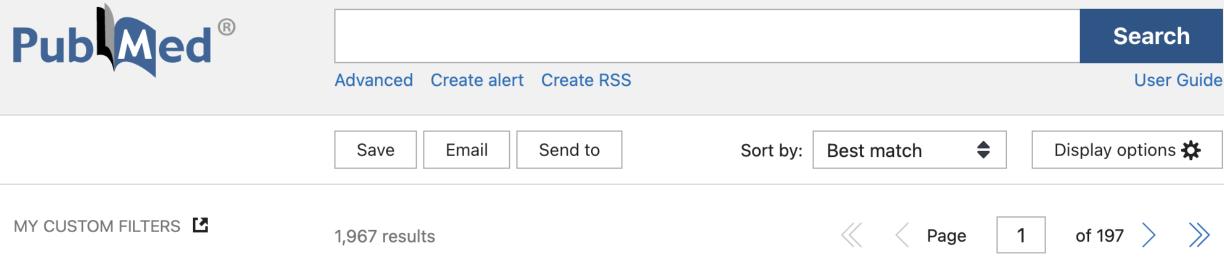
PMID: 31806905 2019

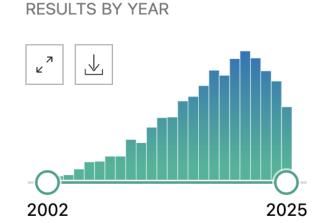




Cite







**Resolvins**: Emerging Players in Autoimmune and Inflammatory Diseases.

Abdolmaleki F, Kovanen PT, Mardani R, Gheibi-Hayat SM, Bo S, Sahebkar A.

Clin Rev Allergy Immunol. 2020 Feb;58(1):82-91. doi: 10.1007/s12016-019-08754-9.

Free article. PMID: 31267470 Review.

**Resolvins**, belonging to the group of specialized proresolving mediators (SPMs), are metabolic products of omega-3 polyunsaturated fatty acids (omega-3 PUFAs) and are synthesized during the initial phases of acute inflammatory responses to promote the resolution of inflamma ...

# What Percentage of American's Likely Produce Therapeutic SPM Amounts During Injury/Infection?

"SPM production requires sufficient EPA/DHA as substrates, plus efficient enzymatic conversion (via lipoxygenases like 15-LOX). Dietary EPA/DHA yields only ~1–5% conversion to SPMs in healthy humans, but this drops further (<1%) in chronic inflammation (e.g., obesity, metabolic syndrome), where enzyme pathways are dysregulated.

Therapeutic SPM levels (e.g., 100–400 mcg/day equivalents for resolution) are rarely achieved endogenously without high-dose supplementation."



Vitamin D (as Cholecalciferol – 1000 IU) 25 mcg Total Omega-3 Fatty Acids as TG 1800 mg EPA (Eicosapentaenoic Acid) as TG 960 mg DHA (Docosahexaenoic Acid) as TG 640 mg Additional Omega-3 Fatty Acids as TG 200 mg

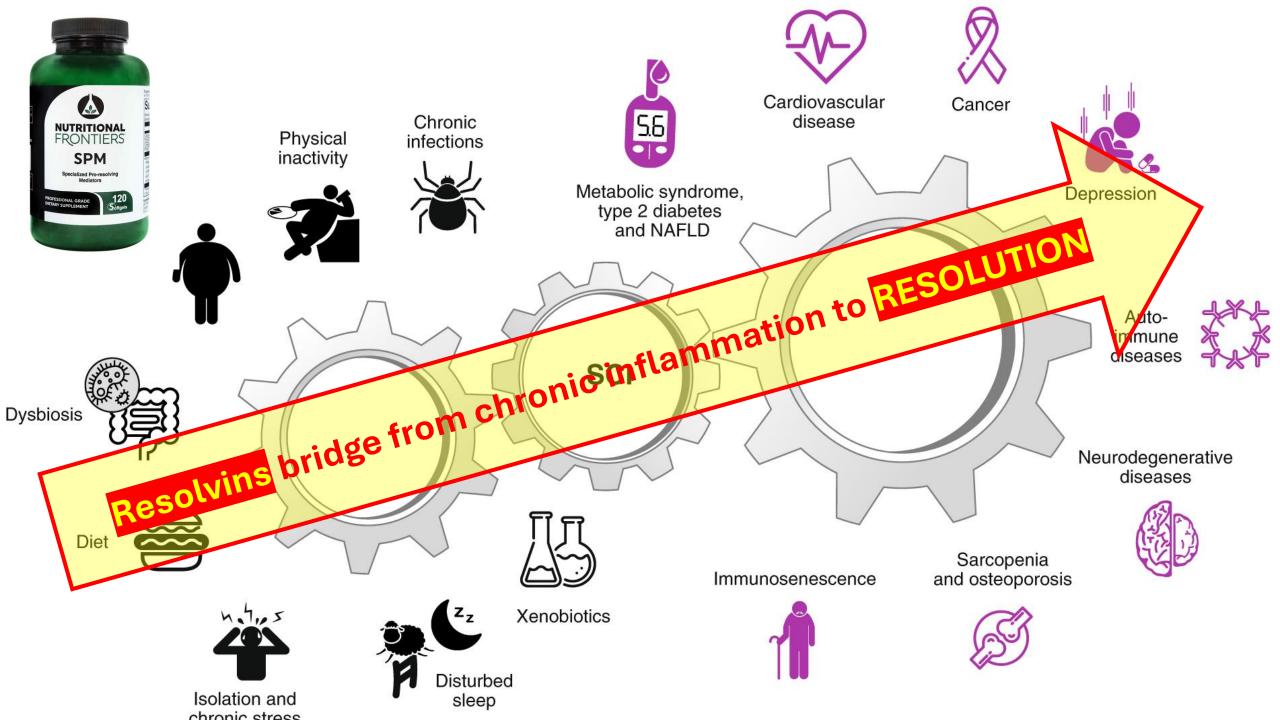


2 Softgels PRMs 400 mcg EPA 580 mg DHA 420 mg



1 tsp
PRMs 400 mcg
Total Omega-3 Fatty Acids 1600 mg
(including EPA, DHA, DPA and
Other Omega-3 Fatty Acids)

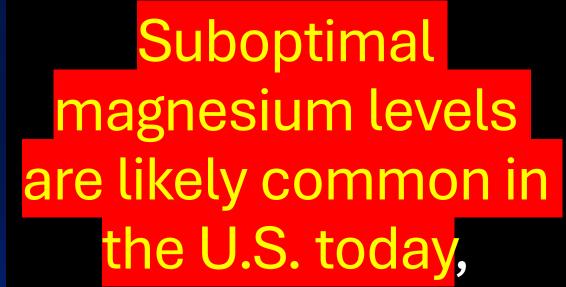




### 10 Signs of Magnesium Deficiency

- Poor Cognitive Processing
- Headaches
- Constipation and related disorders
- Fatigue (physical, mental and emotional)
- Poor Sleep Quality
- Muscle spasms and cramping
- Pain and Soreness
- Irregular Heartbeat
- Numbness and Tingling
- Mood and Behavioral Disorders



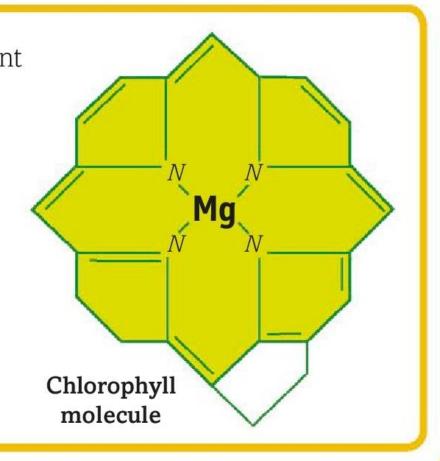


with approximately 50% of the population failing to meet the RDA through diet, based on NHANES 2005-2010 data. A broader estimate, including subclinical deficits, could range from 50% to 70%, driven by dietary shifts and at-risk Grok / Al groups.



#### **MAGNESIUM IN CHLOROPHYLL**

Chlorophyll is an important molecule in plants and is what makes them green. At its centre sits a magnesium atom, which helps plants convert sunlight into energy in a process called photosynthesis.



Plant Magnesium is generally more bioavailable than supplements.

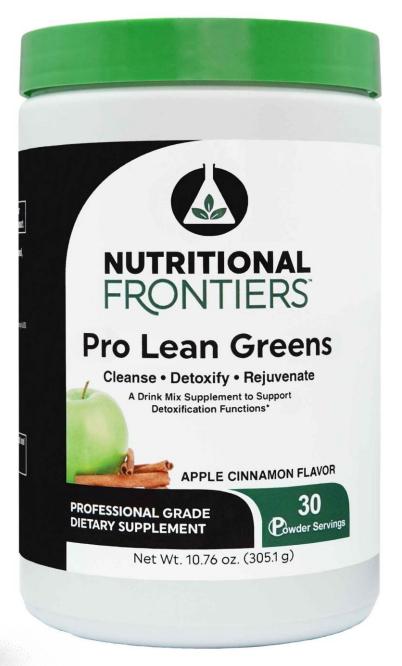
Animal magnesium is highly bioavailable (30–50%, Nutrients, 2023), lacking plant inhibitors like phytates, potentially offsetting lower intake. A 2024 Journal of Trace Elements study notes 40% absorption from meat vs. 20–40% from plants, favoring carnivore efficiency.

Grok / Al

Magnesium 300 mg (as Di-Magnesium Malate (Albion™), Magnesium Bisglycinate Chelate (TRAACS™), Magnesium Taurate 300)







#### **B Vitamins for Brain Health and Flow**

Vitamin B1 Enhances cognitive function and energy production

(Kennedy, 2016, Nutrients).

Vitamin B3 Supports neurotransmitter synthesis

(Huskisson et al., 2007, Nutrition Journal).

Vitamin **B5** Boosts acetylcholine production,

(Rao et al., 2007, Indian Journal of Psychiatry).

Vitamin B6 Regulates dopamine and serotonin levels

(Kennedy, 2016, Nutrients).

Vitamin B7 Supports nerve function and glucose

metabolism

(Mock, 2017, Annual Review of Nutrition).

Vitamin B9 Enhances cognitive flexibility and reduces fatigue

(Scaglione & Panzavolta, 2014, Clinical Interventions

in Aging).

2 :Improves nerve signaling and red blood Vitamin B'

cell production

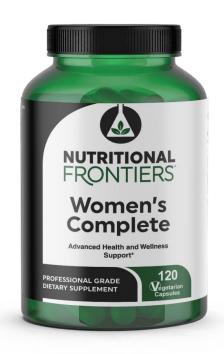
(O'Leary & Samman, 2010, European Journal of Clinical Nutrition).

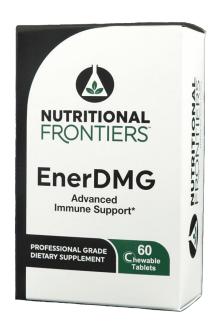


## B Complex and Methylation Support



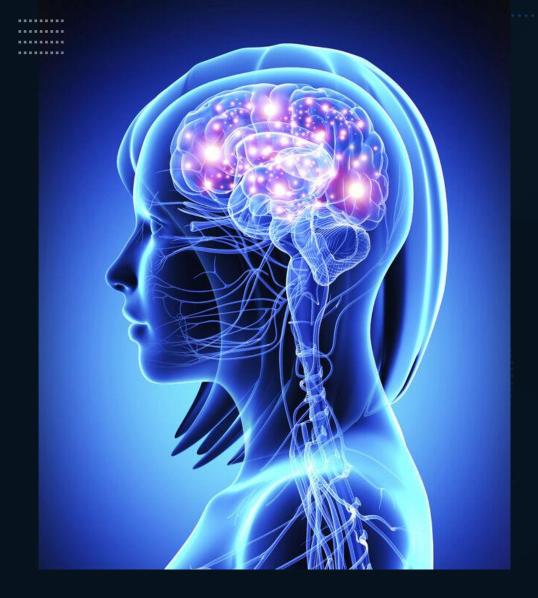






#### **Antioxidants Improve Flow**

- 1. Antioxidants improve Focus and Clarity (Halliwell, 2012, *Journal of Neurochemistry*).
- 2. Improved Cerebral Blood Flow (Spencer, 2009, Genes & Nutrition).
- 3. Neuroprotection supporting cognitive resilience during intense mental effort (Floyd & Hensley, 2002, *Neurobiology of Aging*).
- 4. Mood Stabilization (Pasinetti & Wang, 2011, Neuromolecular Medicine).
- 5. Enhanced Energy Metabolism (Packer et al., 1995, Free Radical Biology and Medicine).



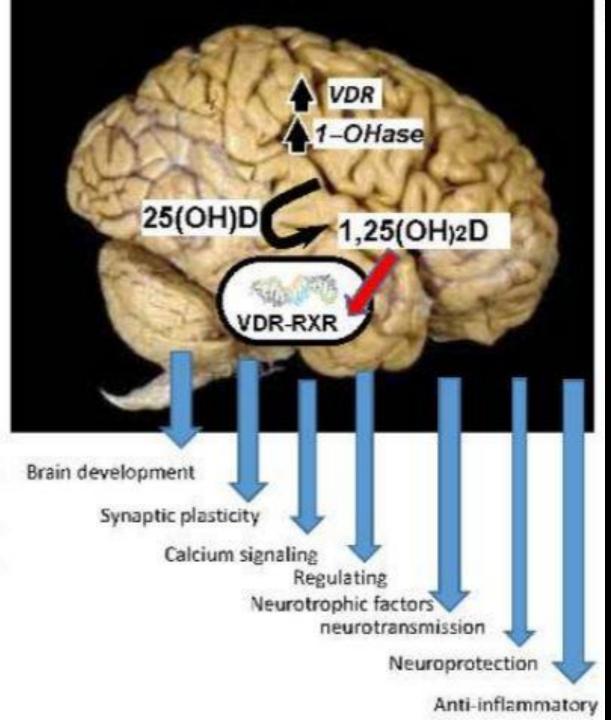
## AntiOxidants











#### Vitamin D enhances the flow state

- 1. Neurotransmitter Support: dopamine and serotonin production, (Eyles et al., 2013, *Molecular Brain*).
- 2. Neuroprotection supporting cognitive clarity during intense mental effort (Garcion et al., 2002, *Journal of Neurochemistry*).
- 3. Mood Regulation reduced depression and anxiety
  (Anglin et al., 2013, *British Journal of Psychiatry*).
- 4. Cognitive Enhancement plasticity and memory

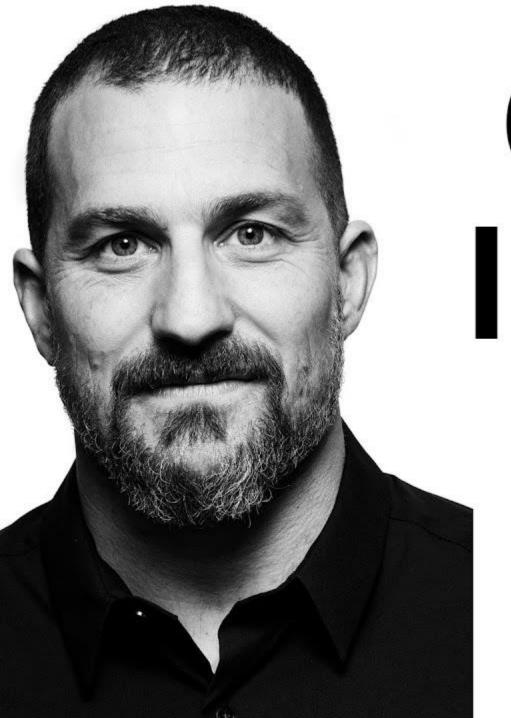
(Latimer et al., 2014, *Journal of Neuroscience*). Grok / Al

## Five reasons to supplement vitamin K2 with D3:

- 1. enhanced calcium regulation,
- 2. improved bone health,
- 3. cardiovascular protection,
- 4. immune support, and
- 5. prevention of D3 toxicity.

Grok / Al





# COFFE & IMPROVING **FOCUS**

HUBERMAN LAB
CLIPS



"Caffeine increases dopamine and acetylcholine in the forebrain which improves the ability to think, adjust to mental and physical demands."

## "chocolate stimulates ALL major brain chemicals of flow state"

https://notepd.com/idea/4-foods-i-eat-before-flow-state-deep-focus-work-rr4ln



#### Reishi (Ganoderma) and Flow

Neurotransmitter Modulation (Dopamine and Serotin)

**Reduction of Oxidative Stress** 

Anti-Inflammatory Effects (More than 15)

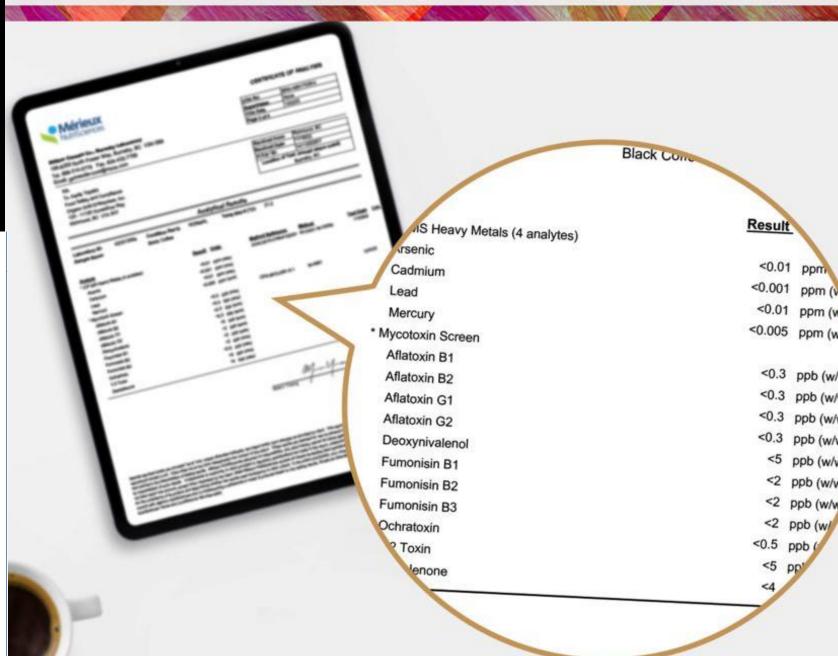
**Neuroprotection and Neurogenesis** 



ORGANO°

## Certified Clean







Clean, Turbo Charged Adaptogenic coffee

## Coffee can increase flow likelihood by 15–25%

- 1. blocking adenosine (increasing alertness, 20–30% attention boost),
- 2. increasing dopamine (15–20% motivation increase),
- 3. stimulating norepinephrine (10–15% faster reaction times), and supporting
  - 4. glutamate-driven plasticity (10% memory improvement)





mindfulness can be thought of as a "momentto-moment, nonjudgmental awareness, cultivated by paying attention in a specific way, that is, in the present moment, and as *non*reactively, as nonjudgmentally, and as openheartedly as possible".

PMID: 31572256

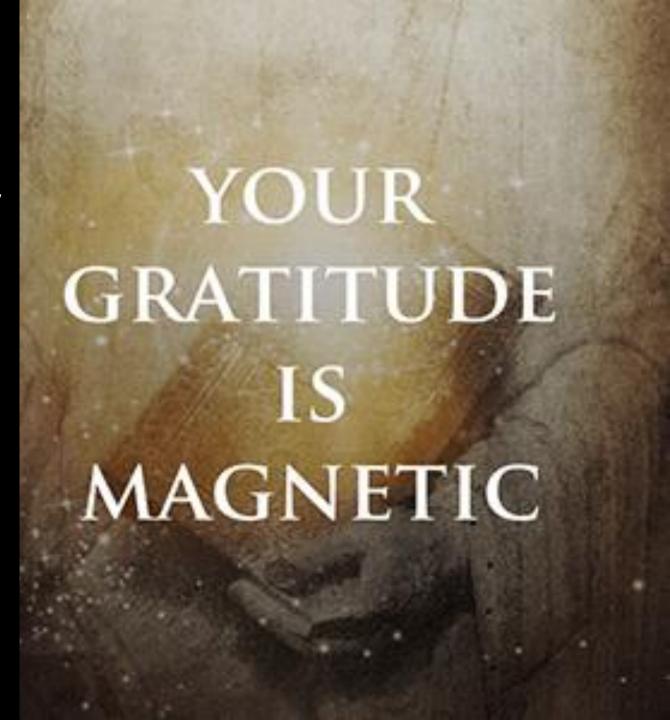
Gratitude is a mindfulness practice.

It increases flow likelihood by 15–25%

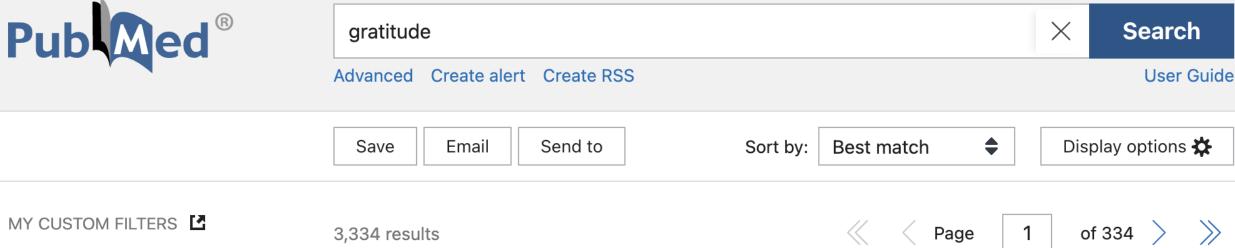
by enhancing positive affect (20–30%),

reducing stress (15–25%), and

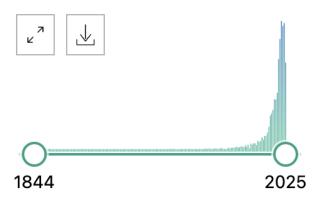
improving focus (10–15%)











- **Gratitude** and well-being: a review and theoretical integration.
- Wood AM, Froh JJ, Geraghty AW.
  - Clin Psychol Rev. 2010 Nov;30(7):890-905. doi: 10.1016/j.cpr.2010.03.005. Epub 2010 Mar 20.

PMID: 20451313 Review.

Cite

This paper presents a new model of **gratitude** incorporating not only the **gratitude** that arises following help from others but also a habitual focusing on and appreciating the positive aspects of life", incorporating not only the **gratitude** that arises following ...

"This study provides the first empirical evidence suggesting that experiencing grateful affect is associated with increased longevity"

PMID: 38959002 2024







## My day begins and ends with gratitude and joy.

— Louise Hay —

#### **I am Grateful For**

1.

**2**.

3.

#### **I am Grateful For**

1.

2.

3.

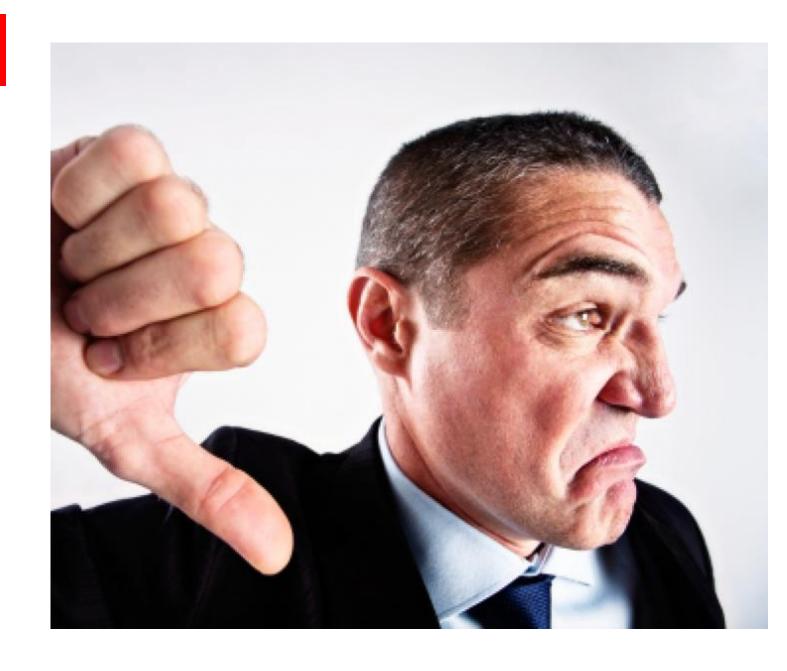
AZ QUOTES

# Pessimists have a harder time achieving flow due to

increased anxiety (20–30% flow reduction),

reduced motivation (15–25% lower persistence),

and impaired focus (10–20% less attention)





## The top five FLOW strategies

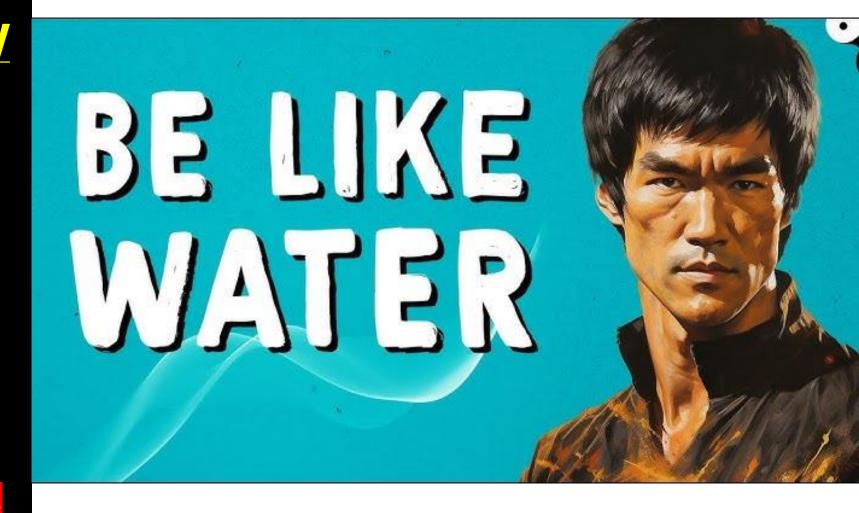
1. Nutrition

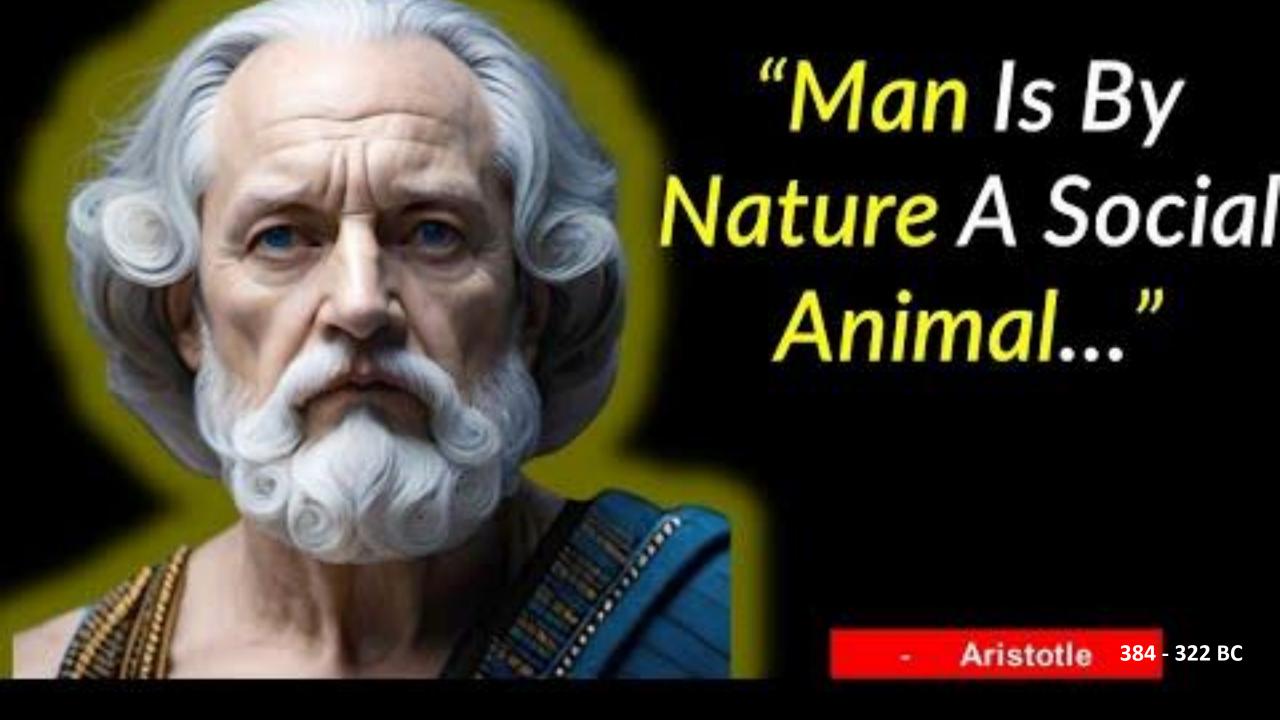
2. Exercise

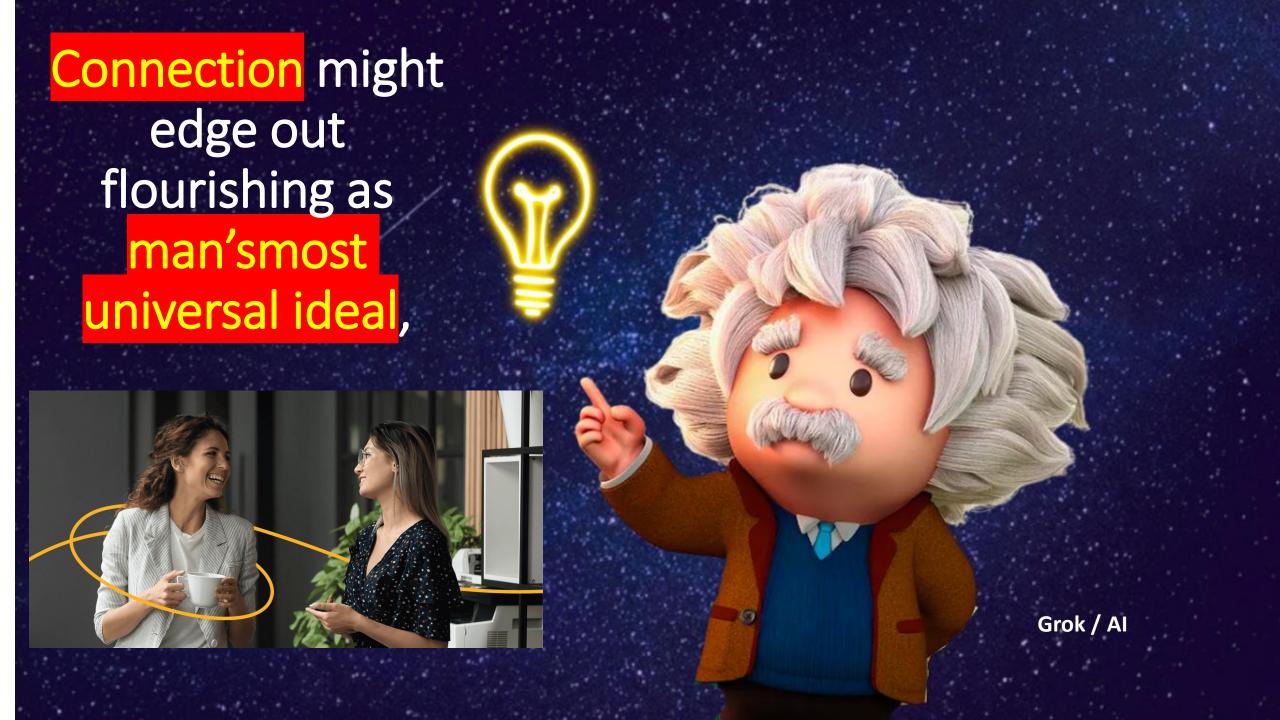
3. Sleep

4. Mindfulness

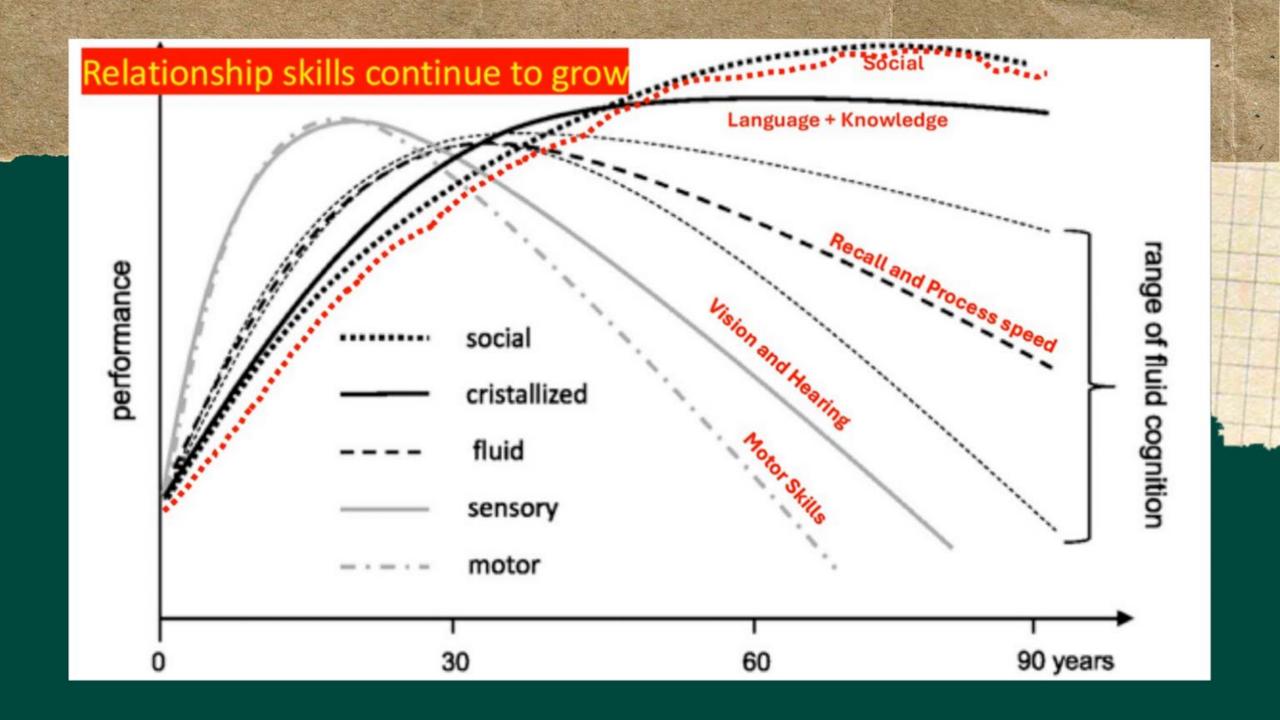
5. Social Connections











#### Social connections enhance flow by

reducing stress (15–25% cortisol reduction),

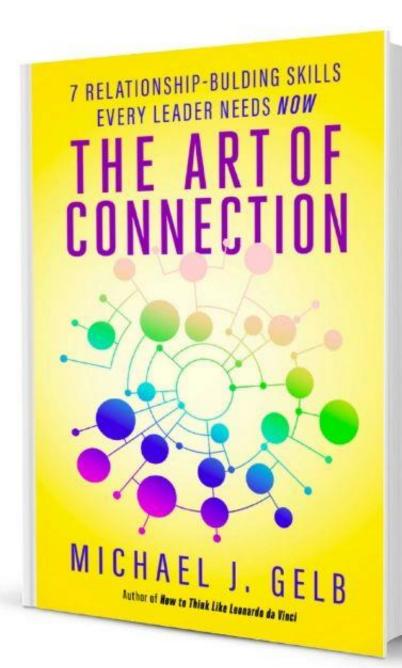
boosting motivation (10–15% dopamine increase),

providing feedback (10–15% flow boost), and

inducing social flow (20–30% engagement increase),

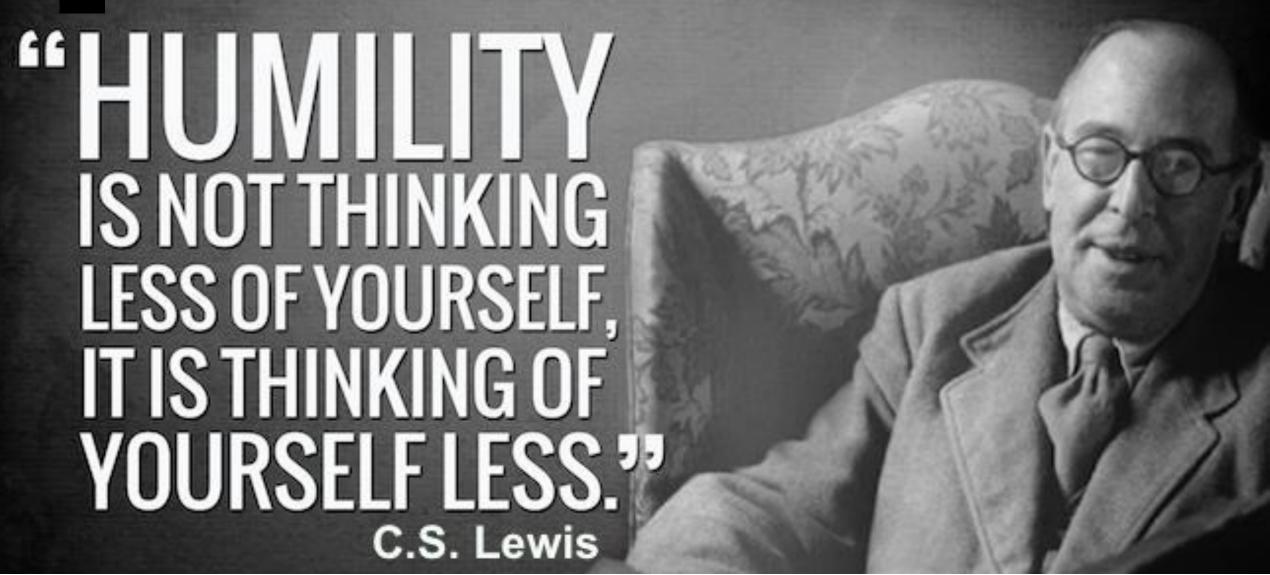
raising flow likelihood by 15–25% (J Happiness Stud, 2018; J Posit Psychol, 2018).





## 7 Relationship Building Skills that every leader needs now





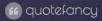
# See the light in others, and treat them as if

and treat them as if that is all you see.

Dr. Wayne Dyer

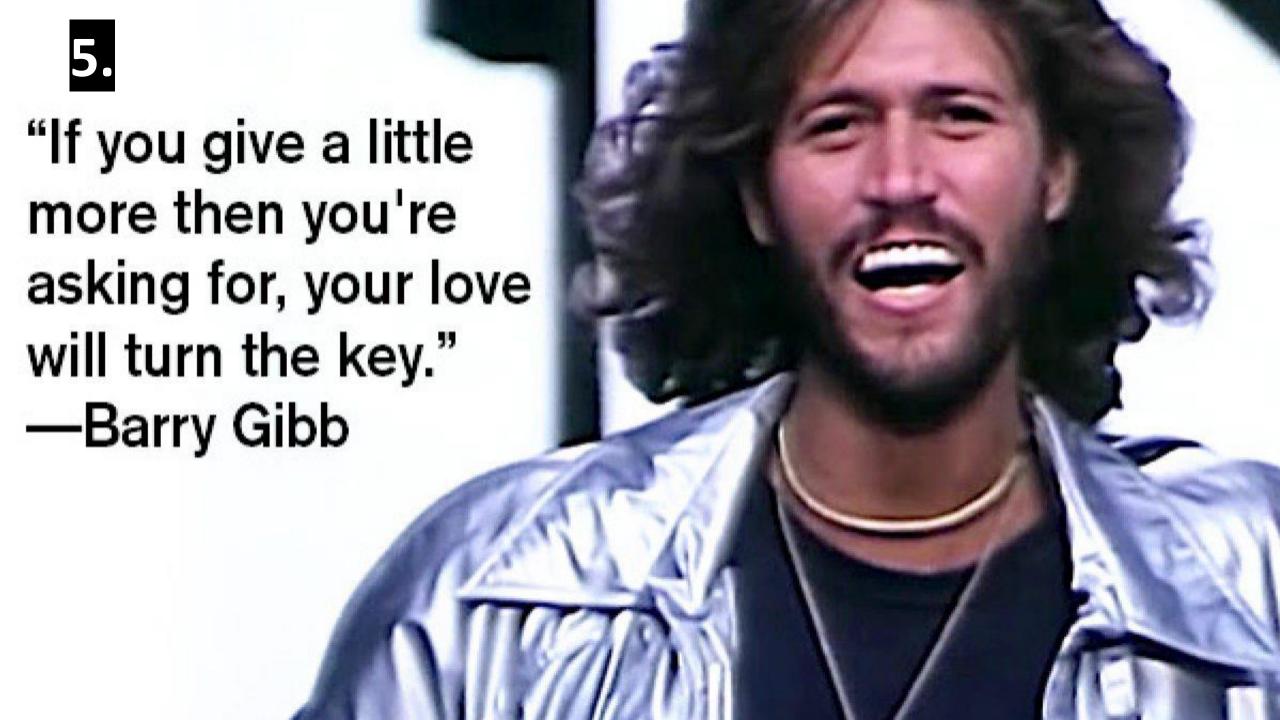
If you want to live a peaceful life, let others live in peace.

Debasish Mridha



# NOTHING SAYS "WE SPEAK YOUR LANGUAGE" as well as actually

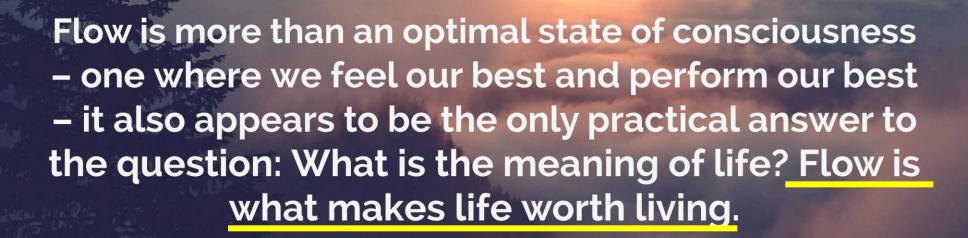
speaking their language.









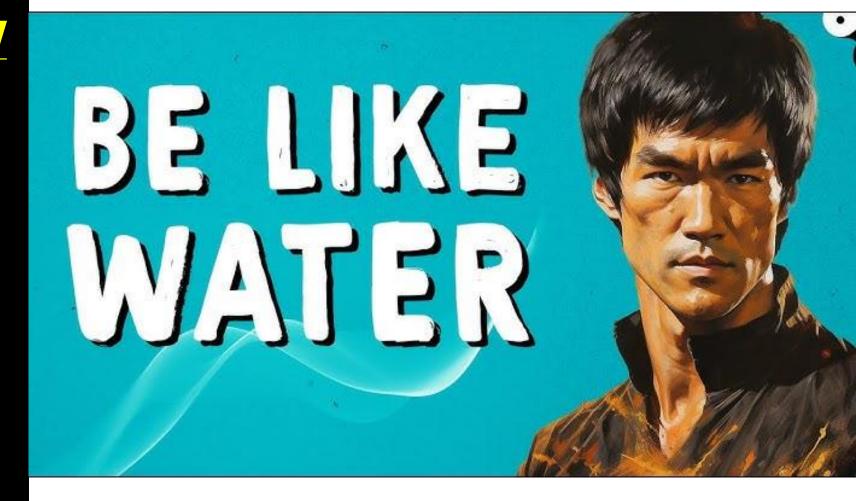


Steven Kotler

🜃 auotefancu

## The top five FLOW strategies

- 1. Nutrition
- 2. Exercise
  - 3. Sleep
- 4. Mindfulness
- **5. Social Connections**





## many toxins target mitochondria

due to their critical role in energy production and cell survival, others exert toxicity through different mechanisms, such as disrupting cell membranes, altering protein synthesis, or affecting non-mitochondrial enzymes.

Grok / Al

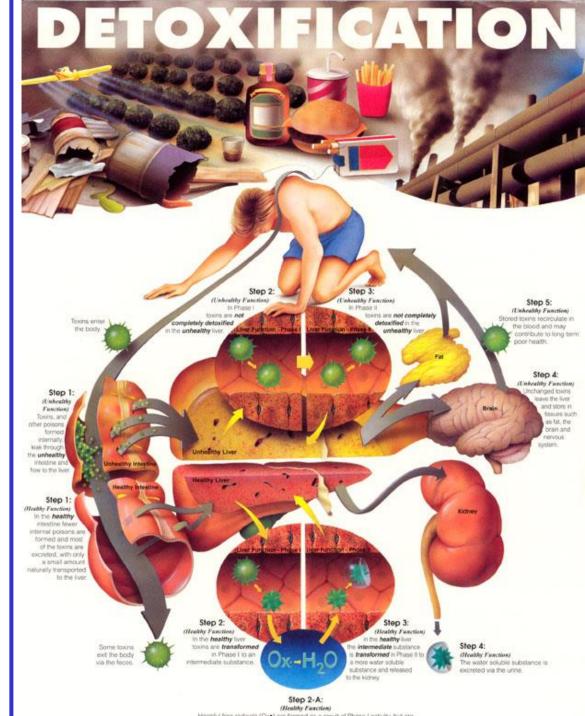


### Symptoms of Chronic Poisoning

- 1. Fatigue
- 2. Sleep disturbance
  - 3. Gl distress
  - 4. Headaches
- 5. Allergy symptoms
  - 6. Confusion
    - 7. Anxiety

Liang, HK. Clinical evaluation of the poisoned patient and toxic syndromes. Clin Chem. 1996;

42(8B): 1350-1355



HOW BIG IS THE PROBLEM?



HOW BIG IS THE PROBLEM?

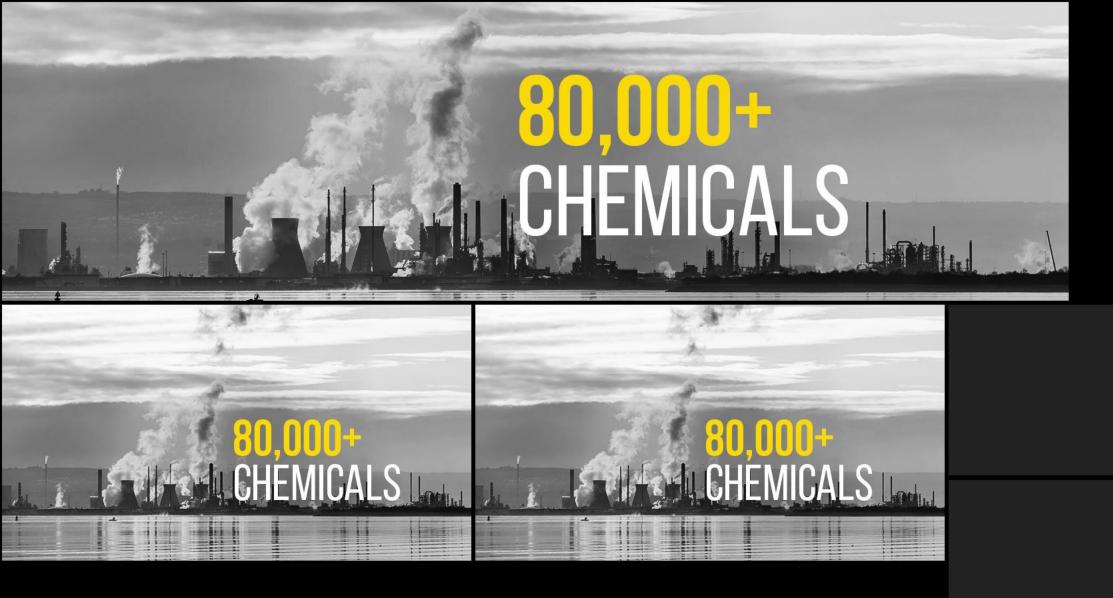


HOW BIG IS THE PROBLEM?













# 700+ TOXINS IN EVERYONE



















"The average female adult in the USA in 2025 is exposed to approximately 50-80 unique toxins every 24 hours through shower and personal care items"

Grok / Al



# DEATHBY ATHOUSAND CUTS

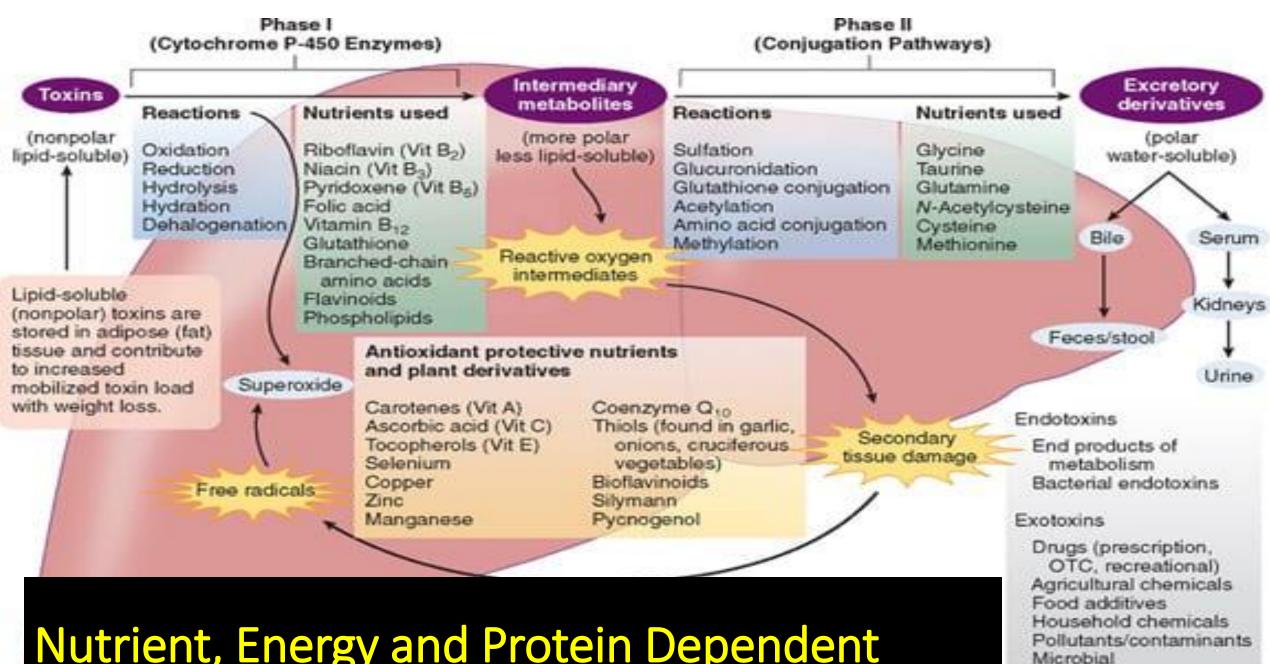


Timothy Brook Jérôme Bourgon Gregory Blue

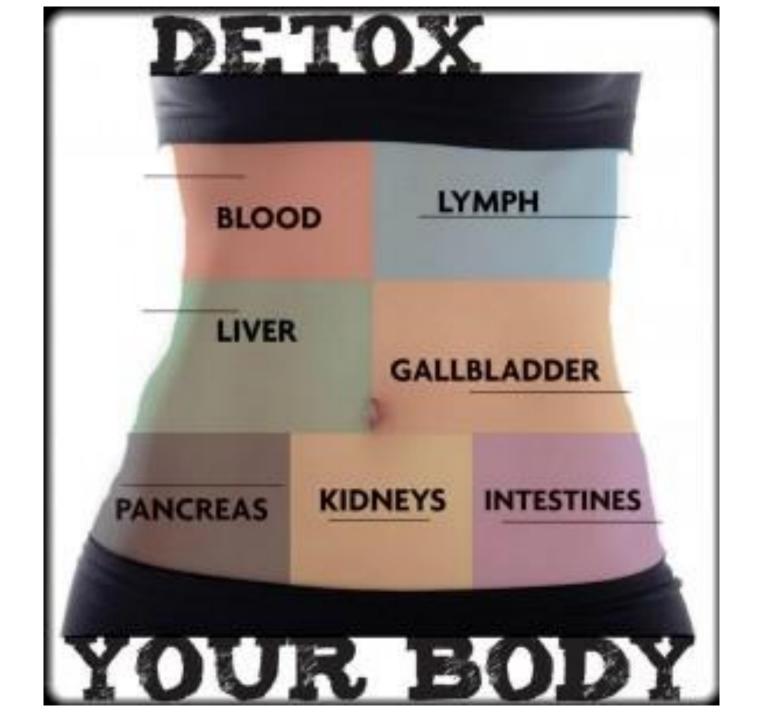
"In a public square in Beijing in 1904, multiple murderer Wang Weigin was executed before a crowd of onlookers. He was among the last to suffer the extreme punishment known as lingchi. Called by Western observers "death by a thousand cuts" or "death by slicing," this penalty was

reserved for the very worst crimes in imperial China.





Nutrient, Energy and Protein Dependent



# 7 to 10 days of detox nutrients and Organic Vegetables

Recommended
Twice each year

#### **DETOXIFICATION PATHWAYS**

Toxins  $\rightarrow$  Phase 1  $\rightarrow$  Phase 2  $\rightarrow$  Phase 3  $\rightarrow$  Phase 4



contaminants/pollutants, insecticides,

pesticides, food additives, drugs, alchohol

NutritionalFrontiers.com ebdnf.com (412) 922-2546



# 

# Autocrine Paracrine Endocrine

### Talk Right

Autocrine

Paracrine

Endocrine



A Stress Reset may be the most universal starting point...



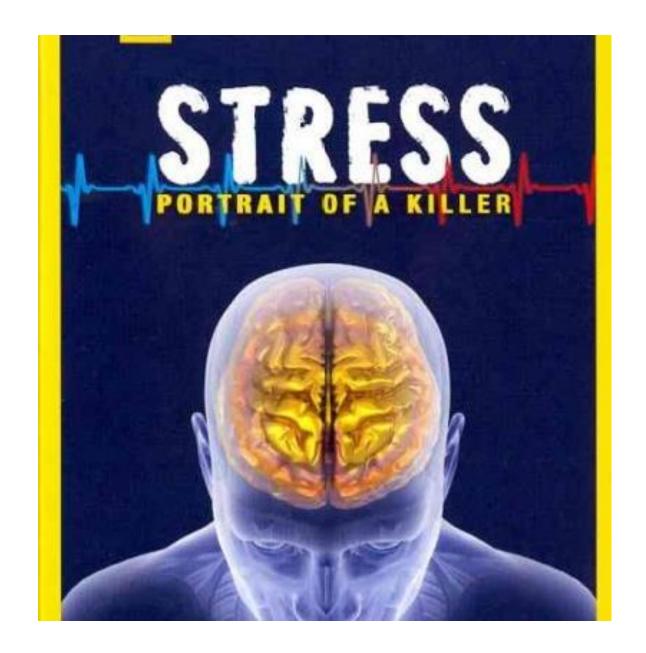
### "Stress is the greatest killer of all time

because it directly causes lethal diseases (heart disease, diabetes, cancer),

amplifies the deadliness of toxins, malnutrition, and inactivity,

and has been a constant threat across human history and into the modern era."

**Grok / Al** 



#### Psychology Today

Find Counselling (City or Postcode)





Tony W. Buchanan Ph.D. Stress on the Brain

**STRESS** 

#### Good News: Stress Is Going to Kill You

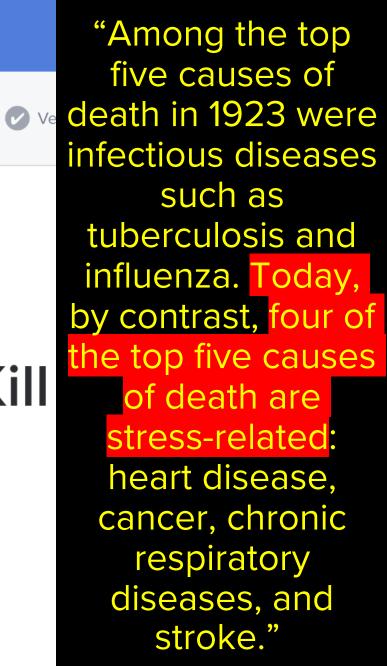
...But it's going to take longer than ever.





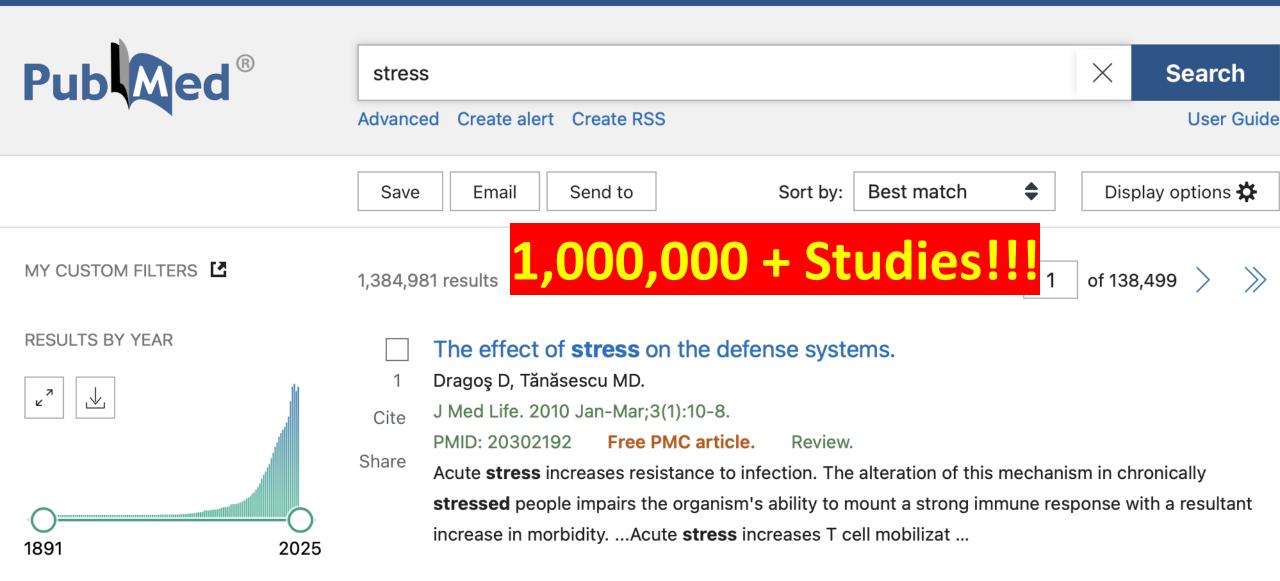








Seventy-five percent to 90% of all doctor's office visits are for stress-related ailments and complaints... And costs American industry more than \$300 billion annually. Webmd.com 12-8-21



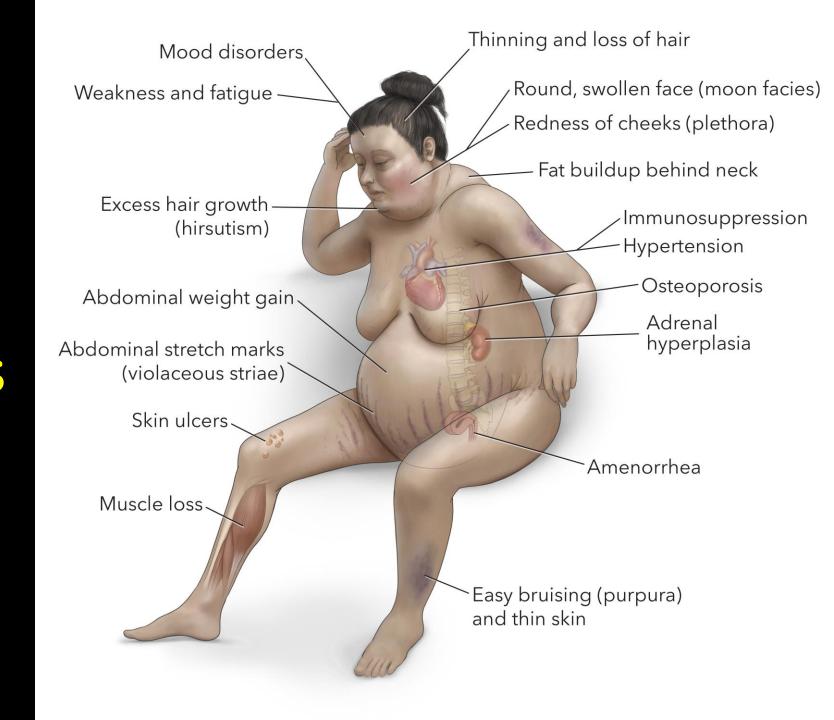
IDLICATION DATE

"Many or, most likely, all New World primates have markedly elevated cortisol and ACTH and resistance"



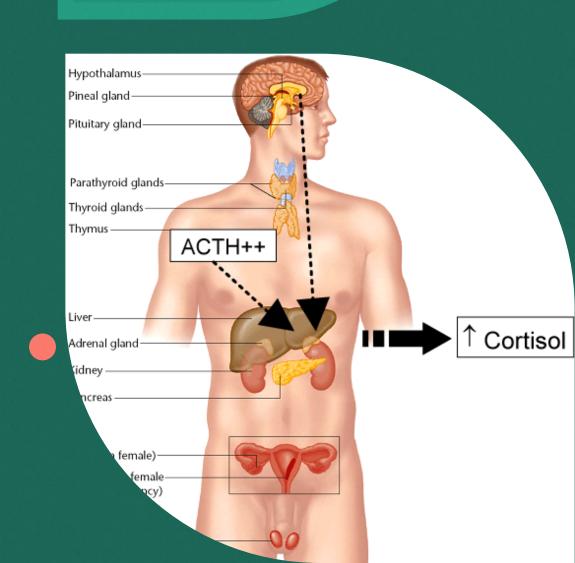
## Cushing's Disease

provides insights to the effects of chronic cortisol elevation



"direct inhibitory effects of melatonin upon several ACTH responses in the human adrenal gland."

PMID: 21332028



Melatonin may be helpful for adrenal insufficiency. PMID: 29199635



#### **VITAMIN D**

Biological light sensor

- Hormone action
- Antioxidant
- Anti-inflammatory
- Immune modulation
- Mitochondrial regulation
- System-wide effects

#### **MELATONIN**

Biological dark sensor

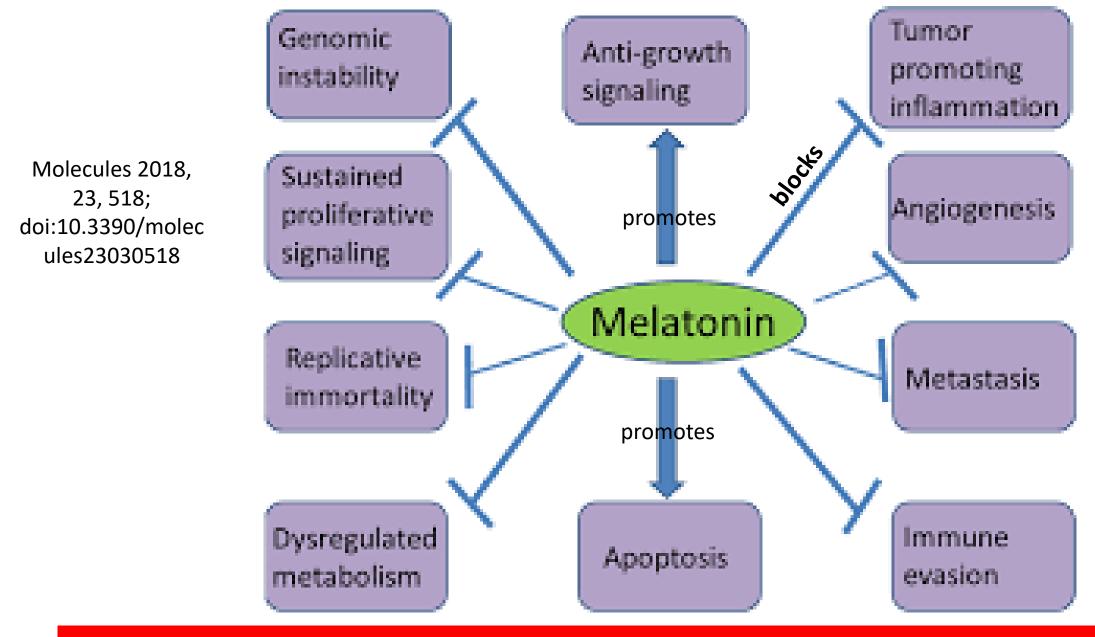


Figure 2. Effects of Melatonin on different cancer hallmarks

"administration of melatonin in humans, as well as in animals (even at supraphysiological doses), has not shown evidence of toxicological effects"



#### Melatonin calms the adrenals.

PMID: 12519889

1 to 2 mg every waking hour



Theanine calms the mind

PMID: 31060476

"L-Theanine promotes relaxation without drowsiness. Unlike conventional sleep inducers, L-theanine is not a sedative but promotes good quality of sleep through anxiolysis."

**2015** PMID: 25759004

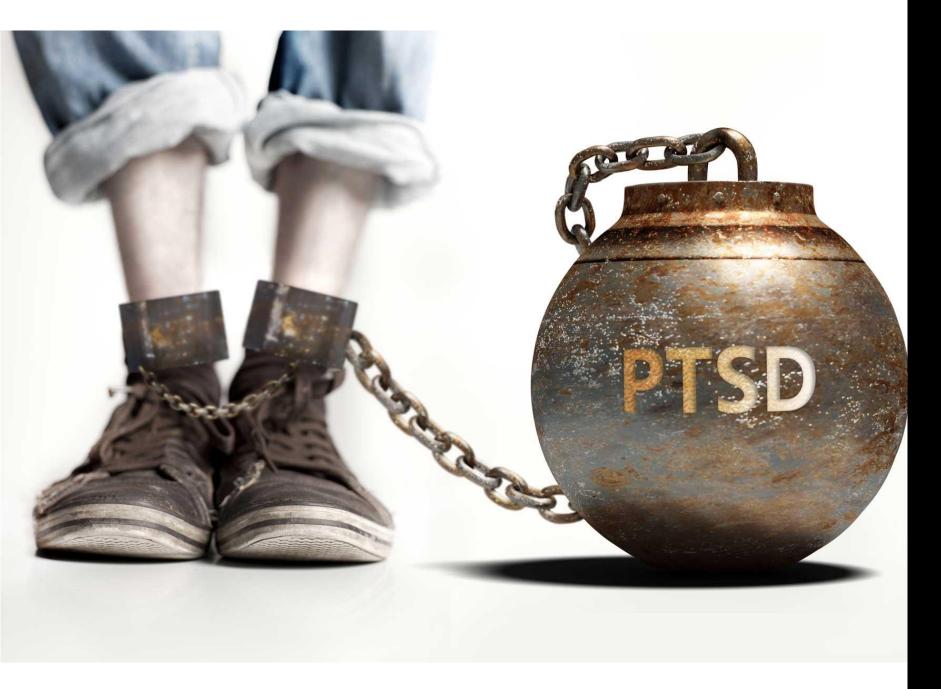






"The authors highlight the role of gammaaminobutyric acid (GABA) as the main mediator of stresslimiting systems in protecting the nervous system and target organs from the damaging effects of acute and chronic stress."

PMID: 32621479 2020



"GABA level was significantly lower in the PTSD group compared with healthy controls."

PMID: 35151217 2022

Ganoderma lowers serum cortisol

PMID: <u>35627059</u> May 2022



# Stress Reset I of each every waking hour for 7 to 10 days



#### SUPPLEMENT FACTS

Available Bottle Sizes: 8, 60, or 120

Serving Size: 2 Capsules

Servings Per Container: 4, 30, or 60

Amount Per Serving

Vitamin B6 10 mg

(as Pyridoxal-5-Phosphate)

Pantothenic Acid
(as Calcium-D-Pantothenate)

(as Calcium-D-Pantothenate) Gamma Amino Butyric Acid (GABA) 500 ma

10 mg

Glycine 500 mg
Taurine 250 mg
L-Theanine (as Suntheanine®) 100 mg

5-Hydroxytryptophan (5-HTP) 50 mg (from Griffonia simplicifolia Seed Extract)

Melatonin 3 mg

**Other Ingredients:** Hypromellose (Capsule), Rice Flour, Vegetable Stearate.

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

**Warning:** Consult a healthcare professional if you are pregnant or nursing, experiencing long-term sleep difficulties; before use in children; before use in those with a medical condition, and those taking medication. Do not drive or operate machinery when taking melatonin.



May all of your efforts lead to health, happiness and Success  $\triangle$ 



Monthly
Wellness
Q and A
Zoom

