

Complementary Treatments for Addiction, Trauma, and Stress

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Rural Opioid and Stimulant Wellness Summit
Price, Utah

October 26, 2023

DISCLOSURES

- We have nothing to disclose
- Amy will be talking about some “off label” use of nutraceuticals

OBJECTIVES

- Understand the role of the 5 Needle Protocol in the treatment of trauma, addiction and stress
- Identify the key components of Integrative Behavioral Health (IBH)
- Introduction to the importance of nutrition in behavioral health and SUD treatment
- Identify evidence -based nutritional supplementation in the treatment of SUD

5-NEEDLE PROTOCOL

- 5- point auricular acupuncture and acupressure developed 30 years ago primarily for use in detoxification from cocaine and opioids
- Non-pharmacologic, non-verbal intervention used as a complementary approach to care for people with SUD or experiencing severe stress or emotional trauma
- Utah House Bill 195 passed 2022 and expanded access to training and licensure in Utah
 - Mental health workers Nurses, CRNA's
 - Physician Assistants Psychologists
 - Nurse Practitioners Social Workers

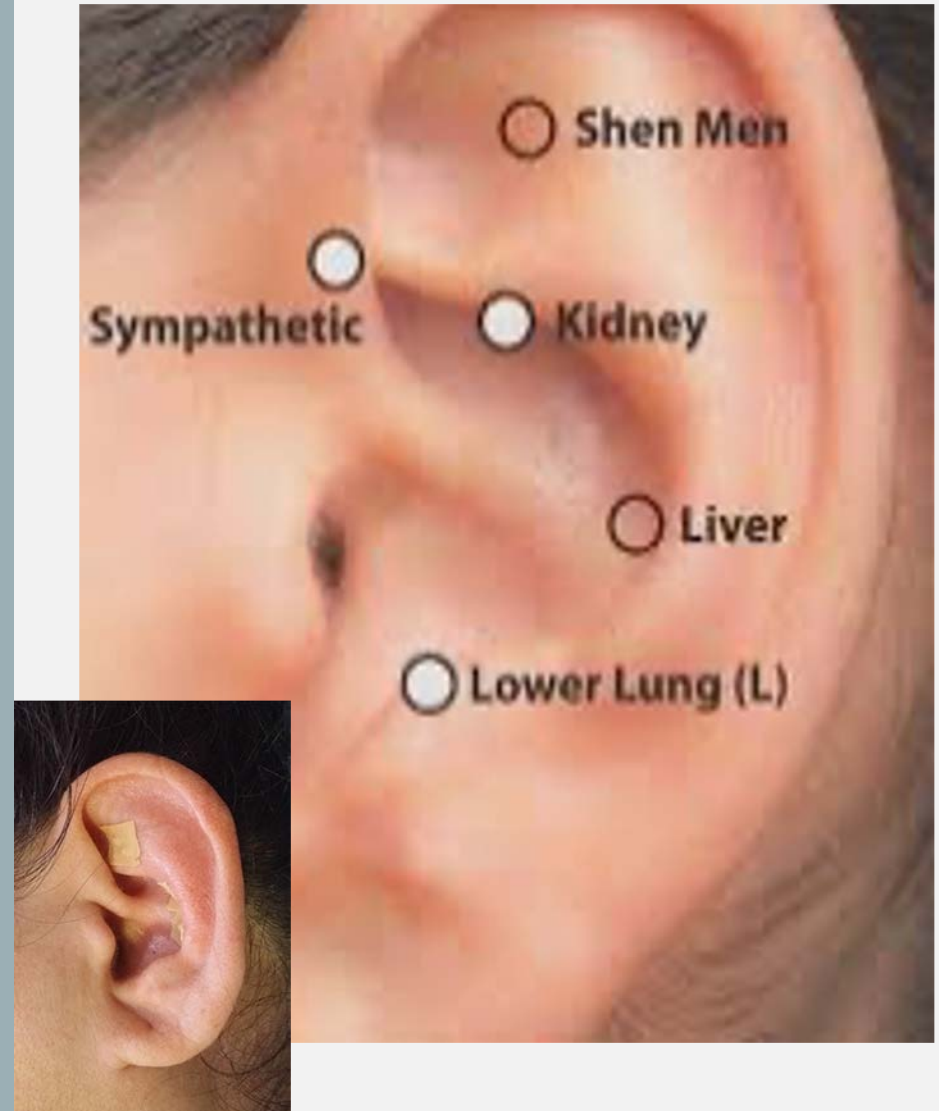




HOUSE BILL 195, 2022
AURICULAR DETOXIFICATION AMENDMENTS

5 EAR POINTS

- 5 small, sterilized, disposable needles are placed in specific sites on each ear.
- Sit quietly in a group setting for 30 to 40 minutes
- Experience warmth, tingling, electrical movement, heaviness of body, sleepiness
- Adverse events are rare but can include headache, light headedness, fainting
- Ear seeds/beads may be placed in the ear instead of needles



5 NEEDLE PROTOCOL (5-NP) POINTS

- Shen Men: calming, reduces cravings, anxiety and insomnia
- Sympathetic: calms nervous system, turns off “fight or flight”
- Kidney: strengthens will, reduces fear
- Liver: gives direction in life, reduces anger and depression
- Lung: provides inspiration, helps with grief



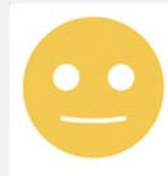
PROCESS OF 5-NP

- We use very thin “pins” (stainless steel, single-use, solid)
- No sensation or slight discomfort - pinch sensation.
- Not a sterile procedure (except for needles themselves); use universal precautions
 - Clean external ears with alcohol swabs
- Sign Consent Form
- Three questions:
 - Do you need to use the restroom?
 - Have you eaten?
 - Please turn off cell phone!
- Sit quietly with needles in place for 20-45 minutes (can use relaxing music or even carry on conversation one on one if desired)

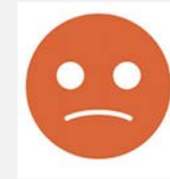
Risks / Side-effects of the 5-NP



- The main side-effect is relaxation :)



- Momentary pinch sensation
- Headache (remove sympathetic)
- Bleeding + bruising
- Needling through the ear (liver, shen men)



- Needle Shock
- Needle Sticks
- 1/25 may feel worse

Number of Sessions: Dosage Matters

- Most patients experience some immediate benefit - or that night - noticing that they sleep better
- In order to sustain this and establish some long-lasting effects they need to continue for several sessions
- 3-5 times per week first couple weeks and then reducing frequency

The infographic is titled "Acupuncture: How Often?" and features a large question mark. Below the title are five cartoon bear faces representing different frequency levels. The table below provides specific recommendations for each frequency level.

	Varying: Weekly to Seasonally	1x a Week	2x a Week	3x a Week	Daily
General Health Maintenance		Mild Issues Pain Scale 1-3	Moderate Issues Pain Scale 4-6	Moderate to Severe Issues Pain Scale 7-8	Severe Issues Pain Scale 8-10
Seasonal Tune-ups		Chronic Condition Support	Body/Joint Pain	Severe Anxiety	Acute Condition/ Severe Pain
Immunity/Wellness		Fertility Hormonal Issues	Poor Sleep High Stress Beginning of Treatment for Many Conditions	Conditions Significantly Interfering with Daily Activities	Near the End of Your Rope

EVIDENCE OVERVIEW

- Carter et al. 2017 - improves quality of life, reduction of mental and physical symptoms, reduction of alcohol and nicotine use
- Baker et al. 2016 - improves retention for treatment of OUD
- Stuyt et al. 2016 - improves treatment outcomes when used a complementary method to standard treatment
- Chang et al. 2014 - improved cravings and anxiety in Veterans
- Avants et al. 2000 - adjunctive use for treatment of cocaine use disorder
- Janssen et al. 2005 - effective in harm reduction settings



RAISE YOUR HAND IF YOU WANT TO TRY
THE 5-NP

Sign the Consent Form

Someone will come over to put pins in your ears!

Stay in your seat, no walking around

If you need to get up, raise your hand and we will take out the needles

Keep needles in for 20-45 minutes

Raise your hand when you are ready for the needles to come out

INTEGRATIVE BEHAVIORAL HEALTH (IBH)

**Patient-centered, coordinated, whole-person care
with a focus on healing and wellness of body, mind,
and spirit**

Allopathic Medicine

Evidence-Based Behavioral Health Interventions

Complementary and Alternative Interventions

Lifestyle Medicine

Functional Medicine

Traditional healing practices



COMPLEMENTARY THERAPIES FOR SUD

Complementary NOT Alternative

Complementary modalities should be utilized ONLY as ADJUNCTIVE therapies to evidence-based medical and behavioral treatments based on the unique needs of the patient and their given diagnoses

The literature regarding complementary therapies for SUD is difficult to interpret due to small sample sizes, less than optimally designed studies, and conflicting results even between similarly designed studies

Keep in mind that people suffering from SUD are too-often lured into expensive complementary treatments with the false hope of TREATMENT

First do no harm



WHY IS IBH IMPORTANT FOR SUD TREATMENT?

- Substance use causes increased cellular damage and impaired insulin sensitivity
- Substance use increases risk of metabolic syndrome and risk of developing Type 2 Diabetes
- SUD leads to inadequate dietary intake and malnutrition, including malnutrition associated with overeating of poor nutrient quality, highly palatable food
- Many people with SUD report rapid onset of weight gain early in recovery
- Weight related concerns are present in a high percentage of women in treatment for SUD and have been shown to contribute to return to use



NUTRITION AND SUD

“OLD WISDOM FROM THE RECOVERY COMMUNITY WOULD SUGGEST THAT A LIBERALIZED APPROACH TO SWEETS, NICOTINE AND CAFFEINE IS FAVORABLE TO HELP THE INDIVIDUAL GET PAST THE IMMEDIATE CRISIS. NEW WISDOM SUGGESTS THAT THIS BEHAVIOR IS A FORM OF CROSS ADDICTION THAT SHOULD BE ADDRESSED EARLY IN RECOVERY.”

DAVID WISS MS RDN





Americans Consume One Ton of
food per year
AND
60% of our diet is from
HIGHLY
PROCESSED
FOODS

NOVA FOOD CLASSIFICATION

in your handouts

NOVA Food Classification – Looking at labels is important! There should be less than 3 ingredients and you should recognize all of them. The less processed the food, the better it is for your body and brain.

Group 1 – Unprocessed or Minimally Processed

Unprocessed – directly from the plant or animal

Minimally Processed - foods that have been cleaned, pasteurized, dried, frozen, etc. Nothing ADDED to the food.

Examples: eggs, frozen foods, grains and rice, pasta, canned or dried beans, nuts and seeds without salt or sugar, milk and yoghurt without sugars, coffee, waters

Group 2 – Processed culinary ingredients – salt, fats, oils and sugar used in cooking to create taste – to be used for flavoring whole foods and balanced diets in moderation.

Examples: oils, butter, sugar, honey, maple syrup, lard, coconut fat, salt

Group 3 – Processed Foods – foods that have added salt, sugar, or oils to make them more palatable and for preservation. **2-3 listed ingredients**

Examples: canned or bottled fruits or vegetable in pickling broth or sugar syrups, tomato paste, bacon, jerky, salted nuts and seeds, canned fish, salted meats and fish, cheese, fresh bread (like from the bakery, not a bag), alcoholic beverages

Group 4 – Ultra-processed Foods (highly processed foods)- no whole foods, laboratory and industry made. Made with oils, fats, sugars, starches, proteins with added flavors, colors.

Examples: packaged breads, cookies, cakes, pastries, chips, snacks, sweetened yogurts, juices, sweetened milks, sodas, margaines, packaged meats, frozen meats and meals, pizzas, pastas in packages, prepared meals in boxes or packages, breakfast cereal, energy bars, energy drinks, meal replacement drinks. **Anything with more than about 3 ingredients and any ingredient you don't recognize**

Correlation not causation

- More mild depression
- More mentally unhealthy days
- More anxious days
- Less likely to report zero mentally unhealthy days
- Less likely to report no zero anxious days

The New York Times

The Link Between Highly Processed Foods and Brain Health

Eating packaged foods like cereal and frozen meals has been associated with anxiety, depression and cognitive decline. Scientists are still piecing together why.



Public Health Nutrition: 25(11), 3225–3234

doi:10.1017/S1368980022001586

Cross-sectional examination of ultra-processed food consumption and adverse mental health symptoms

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Studies

GEICO

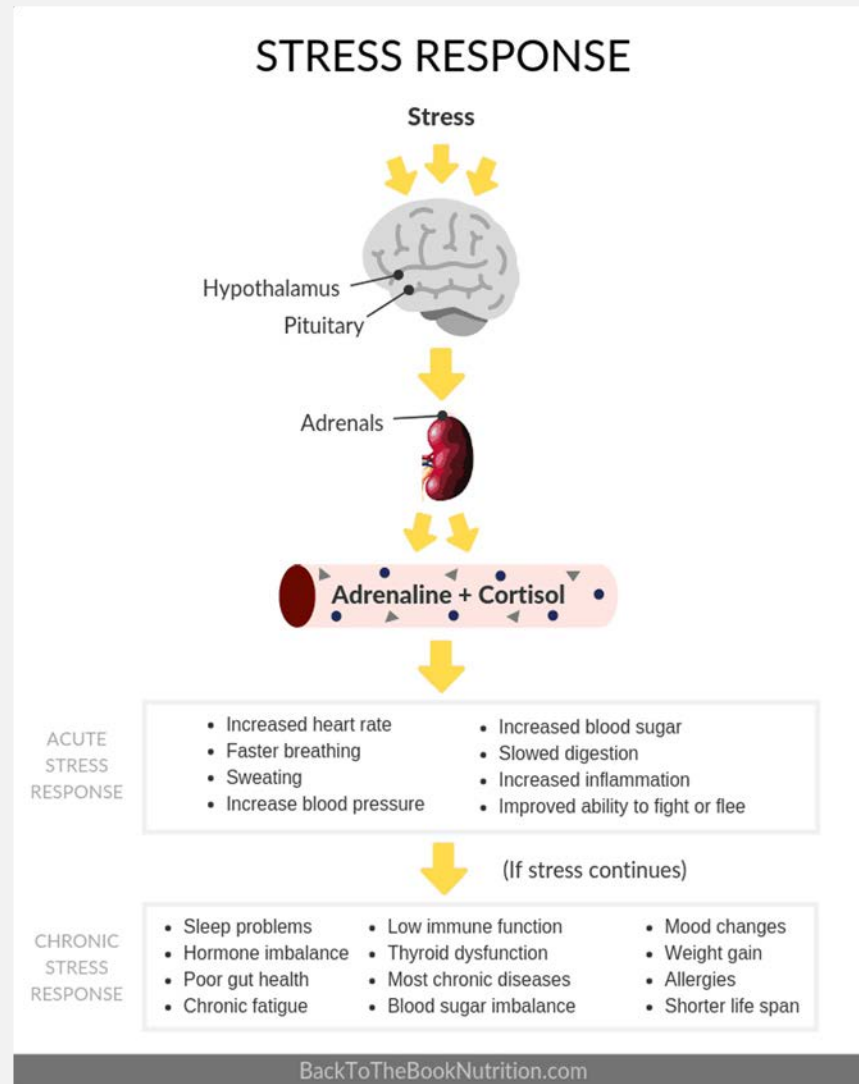
SMILES

PREDIDEP

HELFIMED

REBOUND APPETITE

- DURING USE
 - HPA axis suppressed
 - Reduced CRF, ACTH and Cortisol
- WITHDRAWAL OF SUBSTANCE
 - HPA axis ACTIVATED
 - Increased CRF, ACTH and Cortisol
- Activated HPA axis and Cortisol leads to withdrawal symptoms
 - Anxiety, dysphoria, insomnia
 - Increased appetite
 - Cravings for high density foods and sweets
- Chronically elevated cortisol leads to metabolic dysfunction
 - Weight gain and metabolic syndrome

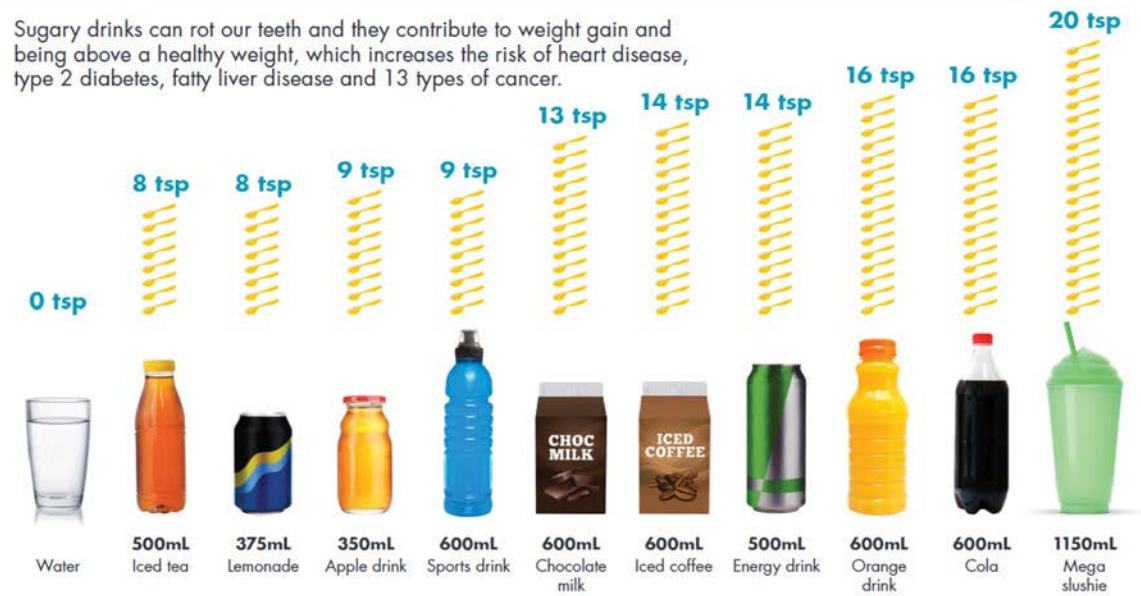



REMOVE SUGARY DRINKS

- Women- no more than 6 teaspoons per day (24 grams)
- Men – no more than 9 teaspoons per day (36 grams)
- Average American consumed 38.87 gallons of soda in 2018
- Frequent sugary drink consumption increases Type 2 DM, heart disease, fatty liver disease and premature death!

HOW MUCH SUGAR IS IN YOUR DRINK?

Sugary drinks can rot our teeth and they contribute to weight gain and being above a healthy weight, which increases the risk of heart disease, type 2 diabetes, fatty liver disease and 13 types of cancer.



 = 4 grams of sugar

Partner:
 Government of Western Australia
Department of Health

 Cancer Council
WA

 ADA
American Dental Association

livelighter.com.au

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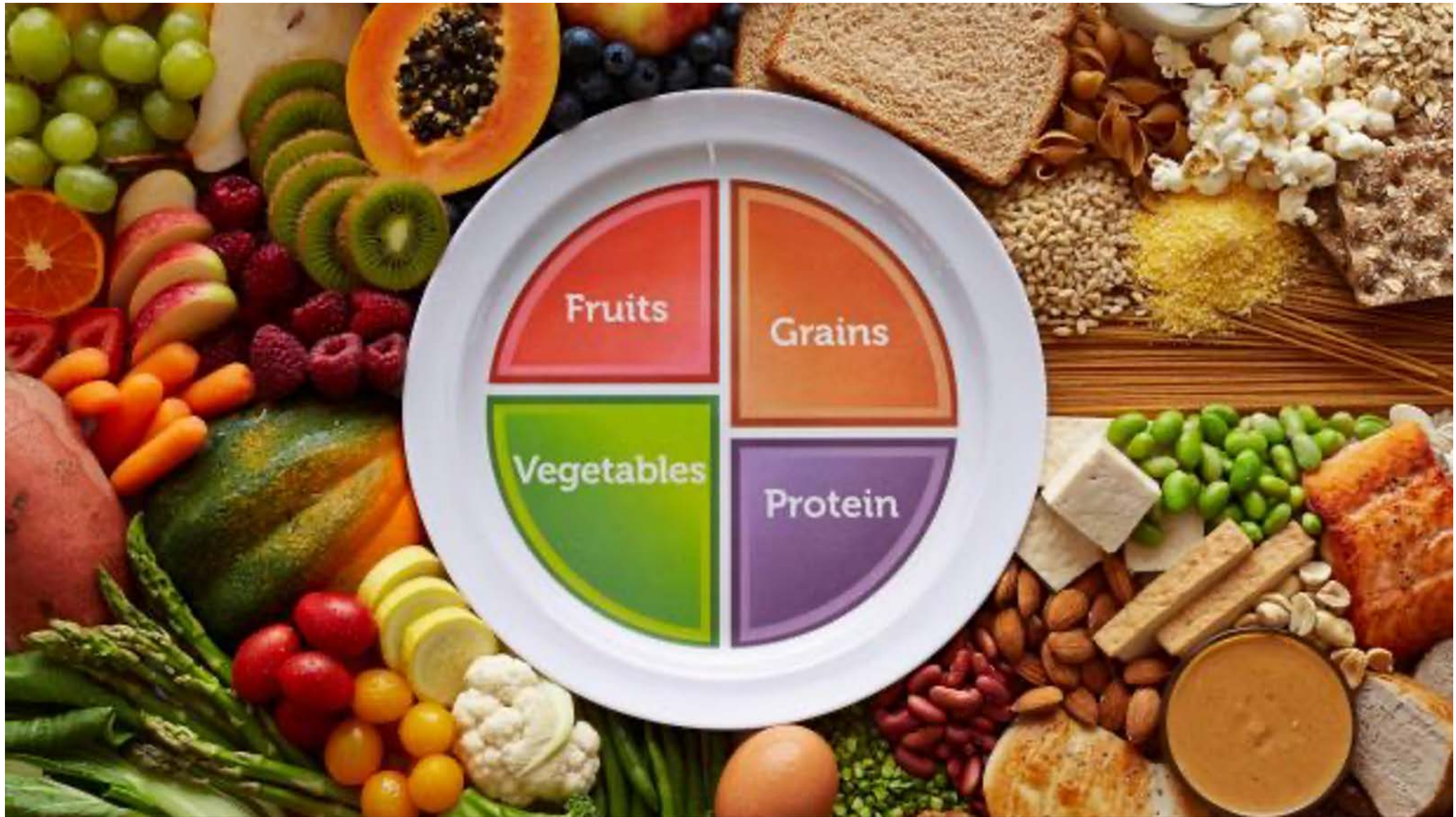
ADD IN HEALTHY DRINKS

- With still or sparkling water without added sugars
- Green tea is an excellent anti-oxidant for gut, brain and heart health
- Coffee is an antioxidant (but not with added milk, non-dairy cream or sugar)

HIGH FIBER – HAPPY GUT

- Recommended daily fiber intake – 25-30 grams
- Average American daily fiber intake – 7-15 grams
- My recommendation – 50 grams!!!
- Fruits and veggies
- WHOLE grains – oats, rye, barley, farro, quinoa, buckwheat, polenta
- Beans and legumes
- Nuts and seeds
- SLOWLY ADD IN ONE FRUIT OR VEGETABLE SERVING PER MEAL





Food Sources Dietary Fiber

Over 100 food sources provide fiber, including fruits, vegetables, legumes, grains, nuts, seeds, and oils. The fiber in plant foods is not digested by anyone present in the digestive tract, but it is recognized by the microorganisms in the large intestine.

There are three kinds of fiber: soluble and insoluble. Soluble fiber dissolves in water. For example, the soluble portion of an apple (mostly seeds) dissolves to form a gel-like substance that makes it easier to digest. Insoluble fiber, on the other hand, does not dissolve in water and is not digested. It adds bulk to the stool and helps the stool move more easily through the digestive tract. In fact, there is a great reason to get more soluble fiber in your diet: it helps to lower cholesterol and to prevent heart disease and to keep blood sugar levels under control. Insoluble fiber helps to prevent constipation and hemorrhoids and to reduce the risk of colorectal cancer.

The Dietary Reference Intake for fiber is 38 grams per day for men and 25 grams per day for women.

- **Healthy, age 14-18: 25 grams per day**
- **Healthy, age 19-30: 28 grams per day**
- **Healthy, age 31-50: 30 grams per day**
- **Healthy, age 51 and older: 31 grams per day**

Food Source (per 100g)	Amount of Dietary Fiber (g)
Alfalfa, fresh	16
Asparagus, fresh	2.1
Beet, fresh	2.8
Broccoli, fresh	2.6
Brussels sprouts, fresh	2.5
Cauliflower, fresh	2.0
Carrots, fresh	1.6
Corn, fresh	1.7
Cucumbers, fresh	0.5
Eggplant, fresh	1.2
Fennel, fresh	2.8
Garlic, fresh	0.1
Green beans, fresh	1.7
Kale, fresh	1.2
Kidney beans, fresh	1.7
Lentils, fresh	1.7
Onions, fresh	0.7
Parsnips, fresh	1.6
Peas, fresh	1.7
Potatoes, fresh	1.7
Spinach, fresh	1.7
Sweet potatoes, fresh	1.7
Turnips, fresh	1.7
Watercress, fresh	1.7
Zucchini, fresh	1.7

IFM
INSTITUTE OF FOOD MICROBIOLOGISTS

Nutrient Spectrum Checklist

Food	Vegetables	Fruits	Whole Grains	Protein	Healthy Fats	Weekly Savings
Alfalfa	●	●	●	●	●	●
Asparagus	●	●	●	●	●	●
Beet	●	●	●	●	●	●
Broccoli	●	●	●	●	●	●
Brussels sprouts	●	●	●	●	●	●
Cauliflower	●	●	●	●	●	●
Carrots	●	●	●	●	●	●
Corn	●	●	●	●	●	●
Cucumbers	●	●	●	●	●	●
Eggplant	●	●	●	●	●	●
Fennel	●	●	●	●	●	●
Garlic	●	●	●	●	●	●
Green beans	●	●	●	●	●	●
Kale	●	●	●	●	●	●
Kidney beans	●	●	●	●	●	●
Lentils	●	●	●	●	●	●
Onions	●	●	●	●	●	●
Parsnips	●	●	●	●	●	●
Peas	●	●	●	●	●	●
Potatoes	●	●	●	●	●	●
Spinach	●	●	●	●	●	●
Sweet potatoes	●	●	●	●	●	●
Turnips	●	●	●	●	●	●
Watercress	●	●	●	●	●	●
Zucchini	●	●	●	●	●	●

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RESOURCES FOR NUTRITIONAL MODIFICATION

<https://nutritionfacts.org/>

THE DAILY DOZEN IS A GREAT RESOURCE FOR INCORPORATING HEALTHY FOODS EVERYDAY

<https://www.forksoverknives.com/>

EDUCATIONAL WEBSITE WITH STORIES, RECIPES, COURSES IN HEALTHY EATING

"It's time to fuel up and harness the power of 29 billion microbes in your gut. Eat with Fiber Fueled and feel the difference." —WILLIAM W. LI, MD, PhD, for his bestselling book *How Not to Die*

The Plant-Based Gut Health Program for Losing Weight, Restoring Your Health, and Optimizing Your Microbiome

FIBER FUELED

WILL BULSIEWICZ, MD, MSCl

NEW YORK TIMES BESTSELLER

NEW YORK TIMES BESTSELLER

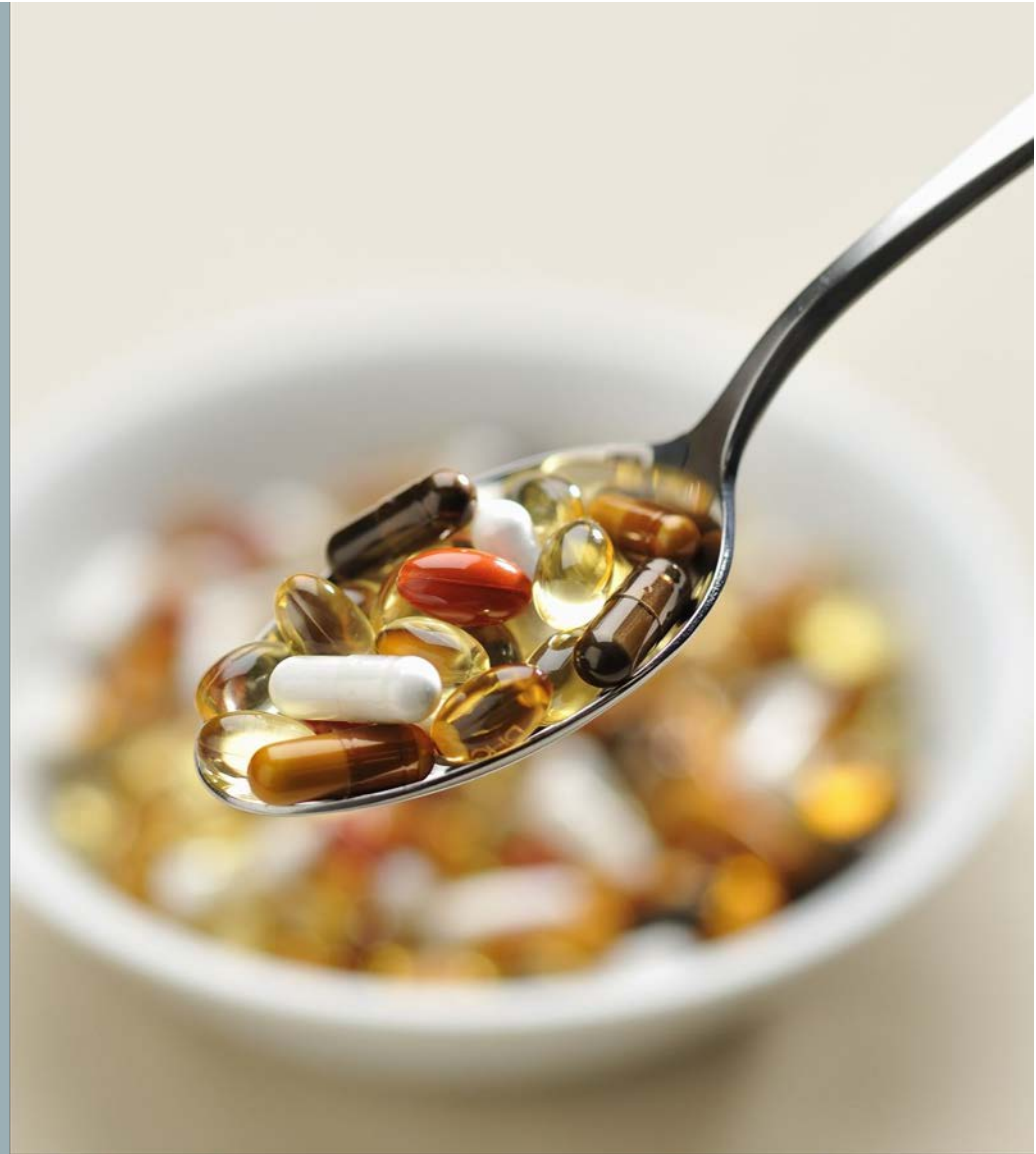
HOW NOT TO DIE

Discover the Foods Scientifically Proven to Prevent and Reverse Disease

MICHAEL GREGER, M.D., FACLM
FOUNDER OF NUTRITIONFACTS.ORG
with GENE STONE

FEATURING DR. GREGER'S DAILY DOZEN: WHAT TO EAT TO ADD YEARS TO YOUR LIFE

Nutritional Supplements





Magnesium

NMDA receptor antagonist – reduces glutamate excitation

GABA agonist – increases GABA inhibition

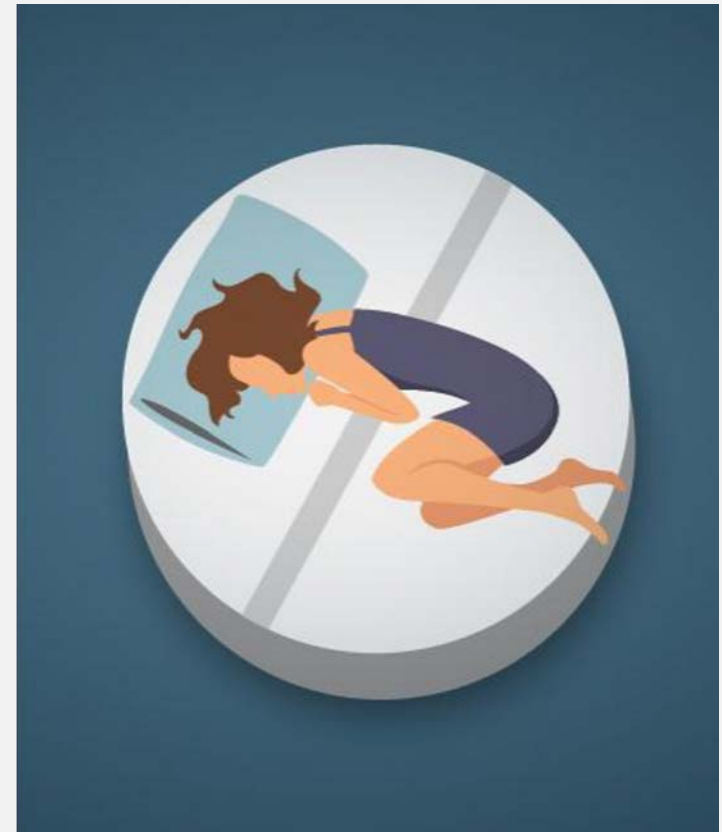
Magnesium Summary

- Magnesium rich foods
- **Magnesium Glycinate** is my preferred formulation
- Reduced GI effects- cramping and diarrhea
- Uses
 - Insomnia 250-500 mg – either alone or in combination with melatonin or as adjunctive treatment with medication
 - Acute Alcohol Withdrawal 250 mg twice daily
 - **Constipation** for patients on buprenorphine – **Magnesium Oxide** 250 mg, increase as needed



Melatonin

- Chronic use of substances leads to characteristic changes in sleep which can persist weeks into abstinence
 - Increase in sleep onset latency
 - Decreased total sleep time
 - Increased night wakening
 - Decreased REM and slow wave sleep (restorative sleep)
- PERSISTENT SLEEP DISRUPTION IS A RISK FOR RETURN TO USE (HALT)



MELATONIN

- **Start low and go slow to avoid negative side effects**
- Dosing
 - Melatonin should be taken at least 1-2 hours before bedtime, ideally at sundown
 - I start patients at 1 mg and have them gradually increase by 1 mg every 3 nights – patients seem to do well with 3-10 mg
- Side effects
 - SIDE EFFECTS include morning fatigue or grogginess, headache and vivid dreams
 - Use care in patients with history of nightmares or trauma, melatonin can increase nightmares
- Uses
 - Any patient having difficulty with sleep, in combination with magnesium, and in combination with other sleep medications

Vitamin D

- Patients with insufficient (12-20 ng/ml) and deficient (less than 12 ng/ml) more likely to USE opioids
- Patients WITH OUD were more likely to be deficient or insufficient than those without OUD ($p < 0.001$)
- Vitamin D deficient mice had increased morphine seeking behavior and withdrawal symptoms than normal mice
- Restoring Vitamin D to deficient mice restored behavior to that of normal mice
- Study suggests a potential role for Vitamin D in OUD

RESEARCH ARTICLE | HEALTH AND MEDICINE

Vitamin D deficiency exacerbates UV/endorphin and opioid addiction

 Lajos V. Kemény^{1,†},  Kathleen C. Robinson^{1,†},  Andrea L. Hermann¹,  Deena M. Walker², Susan R...

[+ See all authors and affiliations](#)

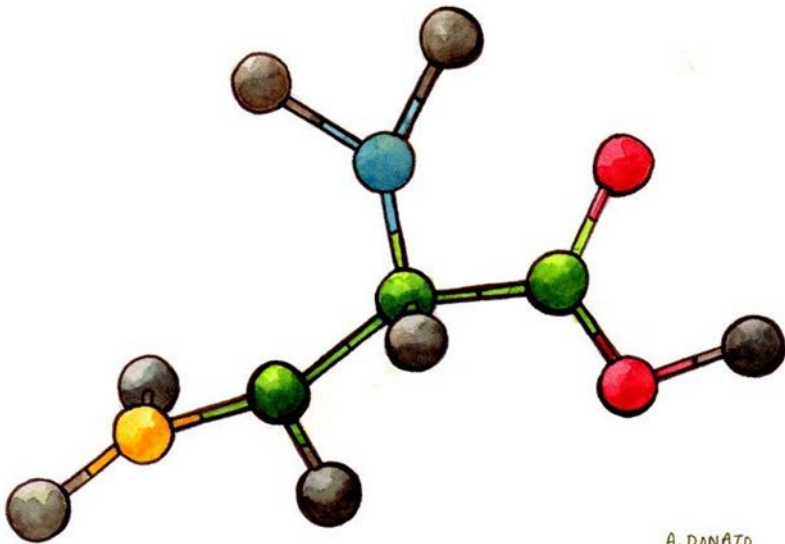
Science Advances 11 Jun 2021:
Vol. 7, no. 24, eabe4577
DOI: 10.1126/sciadv.abe4577



VitAmin D

- Reduces depression, anxiety and inflammation
- Recommended levels
 - Vitamin D Council - < 20 ng/ml deficient , optimal 40-80
 - Endocrine Society - <20 deficient, sufficient 30-50
- Dosing
 - 50,000 units per week of Vitamin D3 -cholecalciferol
 - 5,000 to 10,000 units per day of D3
 - Cholecalciferol vs Ergocalciferol (D2) - D3 probably better

N-Acetylcysteine - NAC 2400-3600 mg per day



- Stimulant use disorders – may reduce relapse in patients who are CURRENTLY abstinent. Studies completed for methamphetamine and cocaine.
- Dose 2400-3600 mg per day
- Cannabis use disorder – may improve abstinence, specifically in adolescents (15-21) when combined with contingency management
- Dose 2400 mg per day
- Less evidence for tobacco and alcohol use, further research is needed
- N-ICE Trial- 2021 methamphetamine- no change in use or craving – patients were not in treatment, were not abstinent, had no other treatment support

LOCAL STUDIES

ODYSSEY HOUSE AURICULAR ACUPUNCTURE QUALITY IMPROVEMENT STUDY

August 2020 to May
2021

Orientation/Covid
quarantine Units

Residential Adult
Facility

Delivered in a group
setting among 7
cohorts, 7-16 adults
per cohort

Needles placed for
approximately 30
minutes, not
observed

Short processing
done after session

QI STUDY

10-point likert scale assessing 5 domains filled out before and after treatment

Anxiety

Irritability

Pain

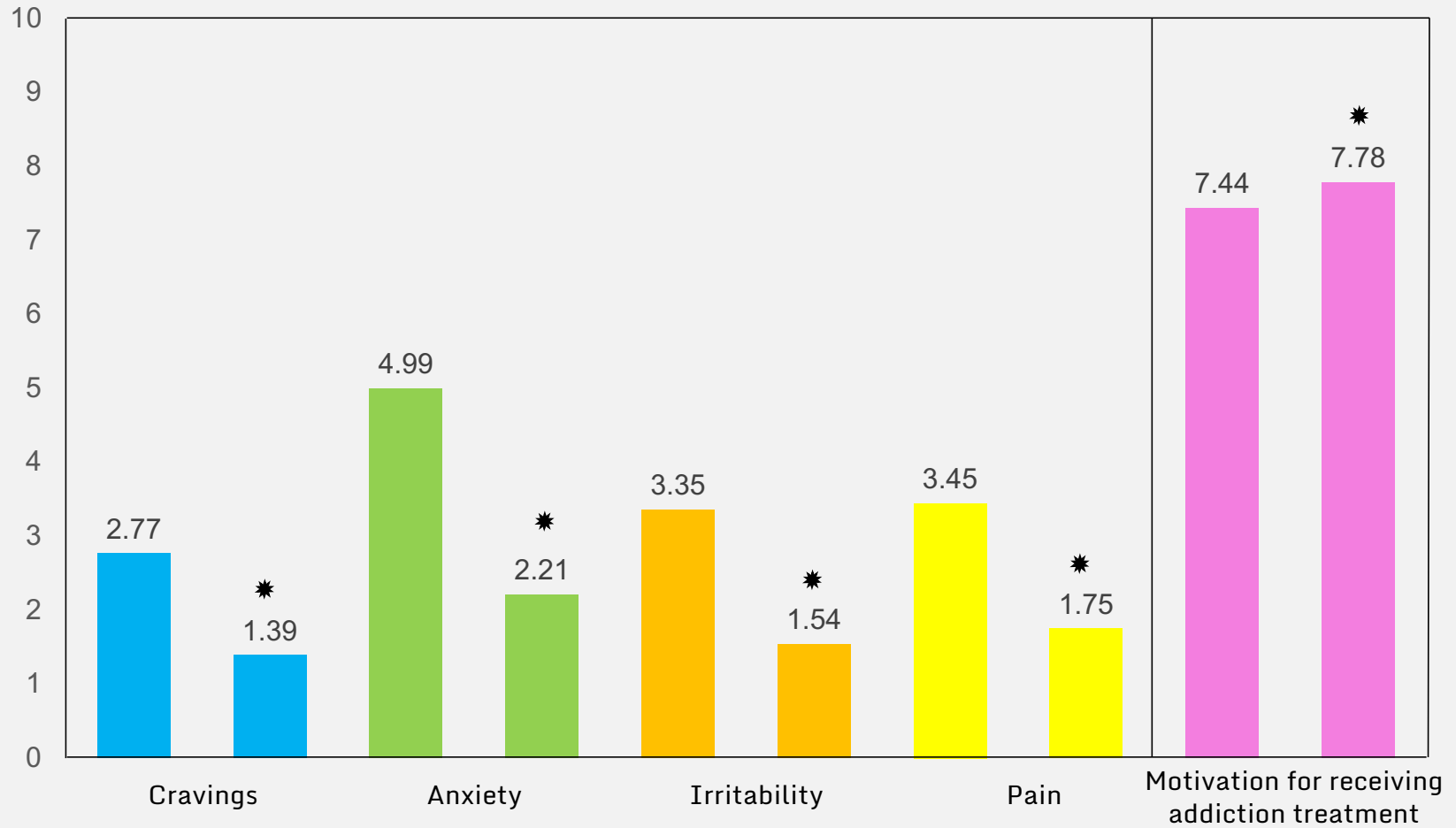
Cravings

Motivation for Treatment

RTC Survey Data

* Post-Acupuncture Data

N= 71



WELLNESS IN RECOVERY PROGRAM- OH

- 12 -week lifestyle curriculum delivered to a cohort of 8 clients in residential programming at Lighthouse
- 6 patients completed the program
- 1 hour meeting per week including a short didactic, food tasting or demonstration, and processing/ discussion
- Weight followed each week
- Pre and post labs - CMP, A1C, Lipids and hsCRP and Quality of Life survey
- Patients from 2 cohorts picked out a plant-based meal to cook 2 times per week as a substitute for meals as usual for the entire house (50 clients)
- Peloton application purchased and installed on smart TV for all 7 cohorts



WELLNESS IN RECOVERY CURRICULUM

Building a healthy plate

Square Breathing Technique

HPA axis, stress and the role of cortisol in SUD

Insulin Resistance

Lab review - group lab review and education

Gut Health

WELLNESS IN
RECOVERY
CURRICULUM

Healthy Sleep

Importance of movement

Anti-inflammatory foods

Building a healthy smoothie

Trying new foods

Wrap up and review

RESULTS

4 of 6 patients lost weight, one patient increased to healthy weight, 1 patient gained weight

4 of 6 patients had a reduction in A1C

3 of 6 patients had reduced total cholesterol but one was started on statin

2 of 6 had reduced triglycerides

1 patient had 1 point improvement in HDL, all of the rest had reduction in HDL

4 patients had reduction in LDL but one was started on statin

RESULTS

Decreased pain

Decreased
fatigue

Decreased
depression and
anxiety

Improved
satisfaction with
health

Improved sleep

Improved
satisfaction with
appearance

THANK YOU!

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Utah Acudetox

For information about ear acupuncture training,
community sessions, and all things 5 Needle Protocol!

www.UtahAcudetox.com

Feel free to reach out with questions!



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<https://doi.org/10.3390/bs7020037>
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