Feed Your Mental Health



Drew Ramsey, MD

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Ramsey Disclosures

- Editorial Board, Medscape Psychiatry
- Advisory Board, Men's Health Magazine
- Author
- I will not discuss the off-label use of any medications



menshealthm...



Message

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1.7M followers

976 following

Men's Health

Your ultimate guide to fitness, health, weight loss, nut sex, & style 💪 | Click here for content from our feed likeshop.me/menshealthmag

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Ask Dr. Br...



Brainfood



Daily Ch

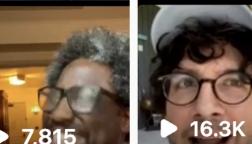


17 Deep Conversations About Mental Health We Had in 2020

Each week, Men's Health took to Instagram Live to find out how people coped during a difficult year. Here are a few of our favorite

BY VANESSA ETIENNE AND JOSHUA OCAMPO PUBLISHED: JAN 1, 2021









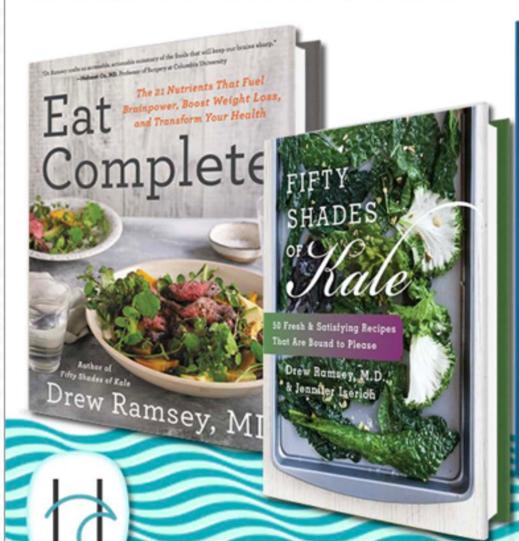
Ramsey Big 5 Nutritional Psychiatry Self-Assessment (RB5NP-S)

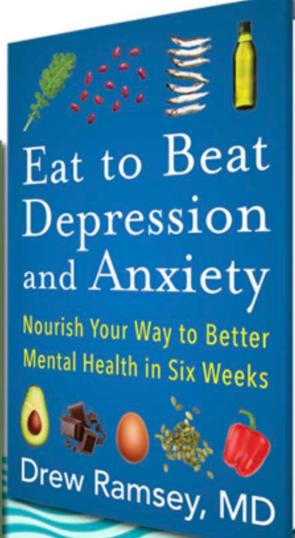
- 1. Besides a salad, I eat greens as _____.
- 2. My three favorite fiber foods?
- 3. I love to dip _____ in olive oil.
- 4. My Seafood meals this week will be ______.
- 5. This week I have eaten ____ CFUs.

Bonus: As an eater, I feel too much guilt about _____

and not enough JOY about_____.

DREW RAMSEY







Can What We Eat Affect How We Feel?

Nutritional psychiatrists counsel patients on how better eating may be another tool in helping to ease depression and anxiety and may lead to better mental health.



Tony Cenicola/The New York Times

By Richard Schiffman

March 28, 2019

WHO MADE THAT?

Who Made That Kale?



Jens Mortensen for The New York Times

By Pagan Kennedy

Oct. 18, 2013

How Food May Improve Your Mood

The sugar-laden, high-fat foods we often crave when we are stressed or depressed, as comforting as they are, may be the least likely to benefit our mental health.

















Seth Grant, Food Service Director Eskenazi Health System









Rachel White, Sky Farmer





\$1 TRILLION

- Lost productivity worldwide due to depression and anxiety
- #1 Worldwide Cause Disability
- US Depression economic burden increased 37.9% from 2010 →2020

\$236.6B →\$326.2B

WHO: https://www.who.int/teams/mental-health-and-substance-use/promotion-prevention/mental-health-in-the-workplace
Greenberg, P.E., Fournier, AA., Sisitsky, T. et al. The Economic Burden of Adults with Major Depressive Disorder in the United States (2010 and 2018).

PharmacoEconomics 39, 653–665 (2021). https://doi.org/10.1007/s40273-021-01019-4

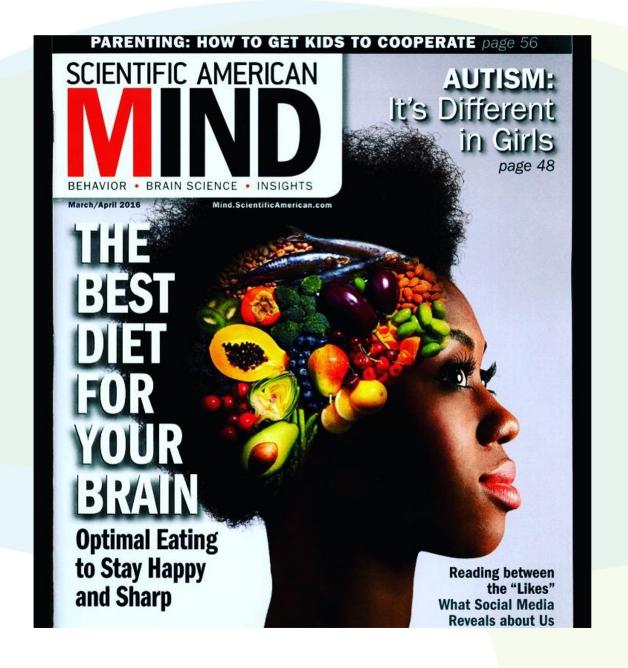


1 in 5

Adults in the U.S. experience mental illness each year



75% of patients with depression in low + 59% middle income countries receive NO care Adults with mental illness do not receive treatment Fewer than 50% of Children with mental health conditions receive help





DREW RAMSEY MD

Your Brain & Food

- → Consumes 420 calories/day
- →20% of daily calories
- →Composed of 60% Fat
- → PUFAs and Cholesterol



Nutritional Psychiatry

The use of nutrition to optimize brain health and to treat and prevent mental health disorders.

Personal View

THE LANCET Psychiatry

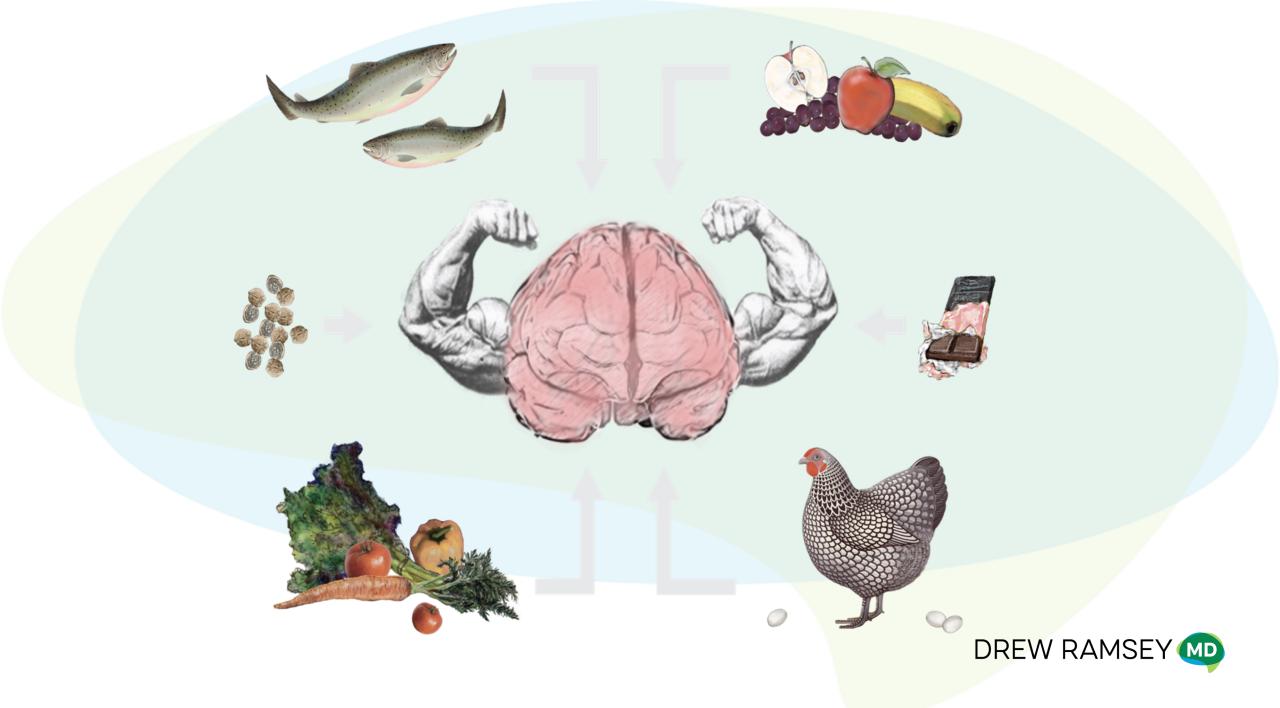
Nutritional medicine as mainstream in psychiatry

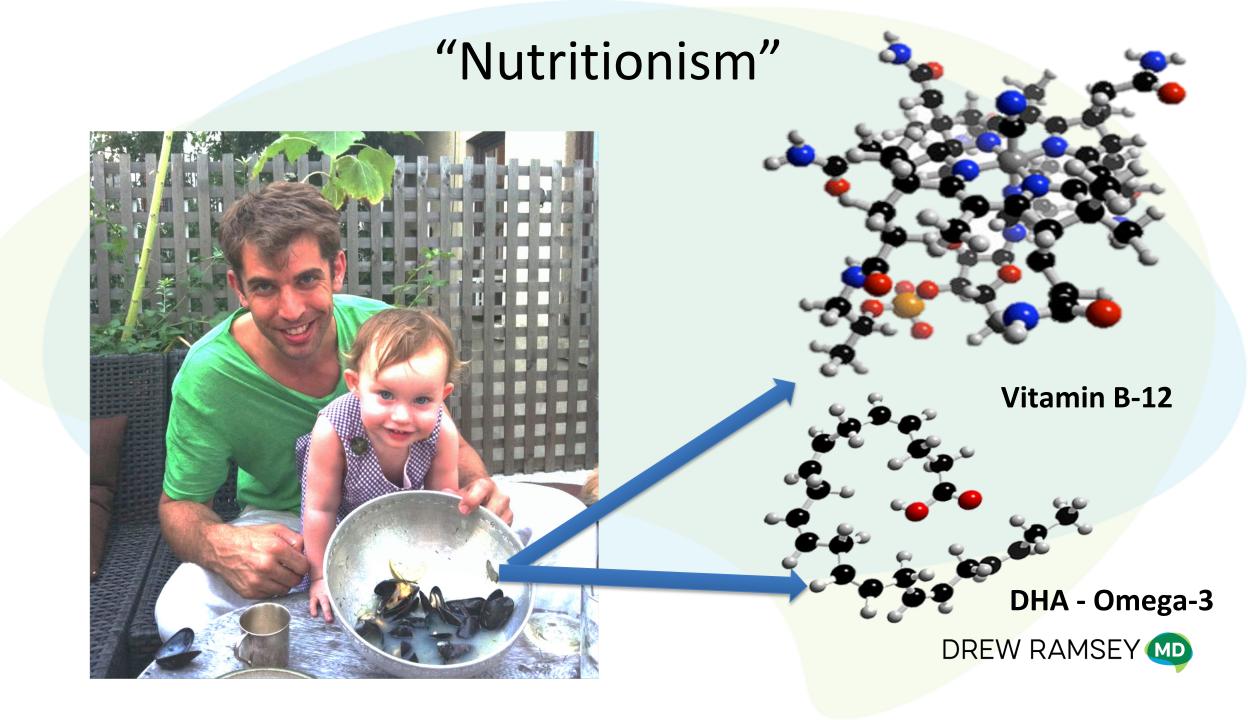


Jerome Sarris, Alan C Logan, Tasnime N Akbaraly, G Paul Amminger, Vicent Balanzá-Martínez, Marlene P Freeman, Joseph Hibbeln, Yutaka Matsuoka, David Mischoulon, Tetsuya Mizoue, Akiko Nanri, Daisuke Nishi, Drew Ramsey, Julia J Rucklidge, Almudena Sanchez-Villegas, Andrew Scholey, Kuan-Pin Su, Felice N Jacka, on behalf of The International Society for Nutritional Psychiatry Research

"Although the determinants of mental health are complex, the emerging and compelling evidence for nutrition as a crucial factor in the high prevalence and incidence of mental disorders suggests that diet is as important to psychiatry as it is to cardiology, endocrinology, and gastroenterology."







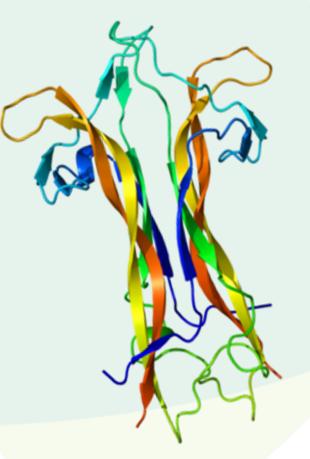
Brain-Derived Neurotrophic Factor (BDNF)

 Promotes neuron development, function, and survival

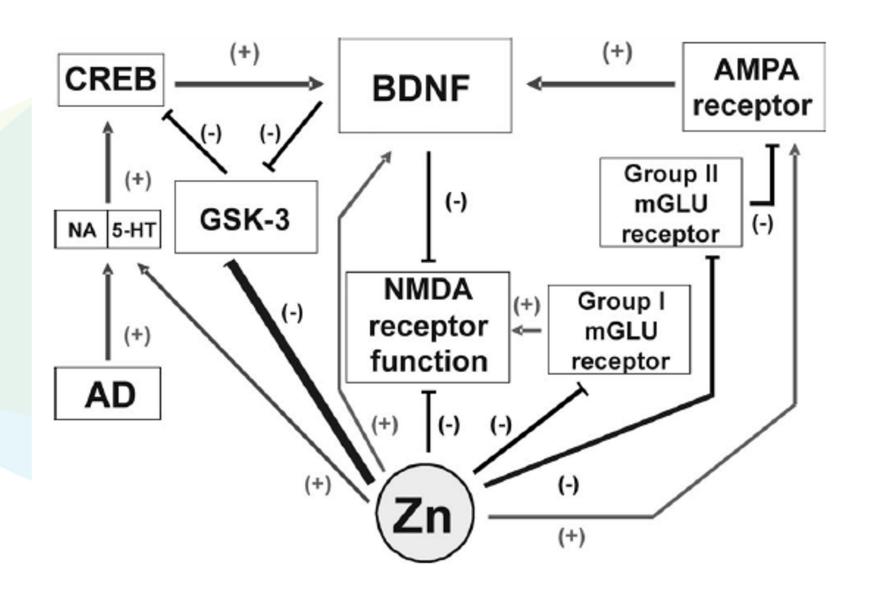
- Most abundant neurotrophin
- BDNF & it's TrkB receptor

Everywhere!

BRAIN GROW!

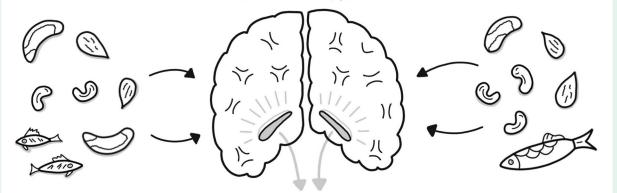




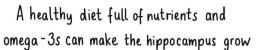


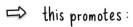
NEUROPLASTICITY

Your brain in GROW = mode









- ▶ learning
- ▶ memory

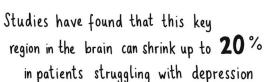


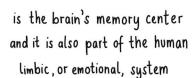
▶ heightened mood











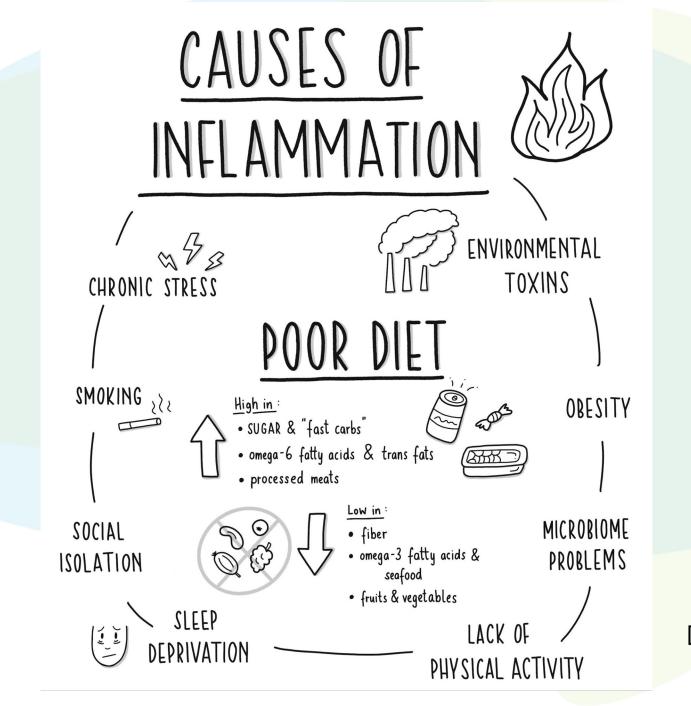






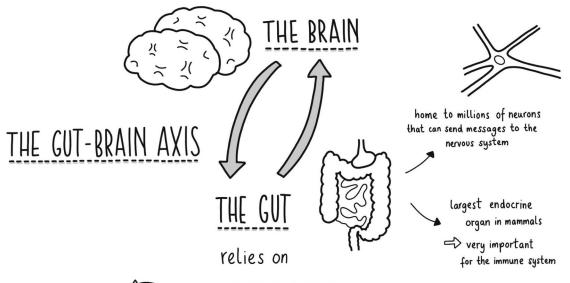
Neuroinflammation





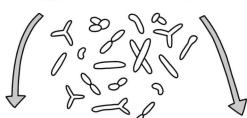
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THE MICROBIOME



The microbiome helps the gut send important messages to the brain (feeling stressed for example)





trillions of microorganisms that live in the GI tract

"Good bugs" help <u>break down</u>
<u>foods</u> and help us synthesize
vital nutrients like folate
and thiamine

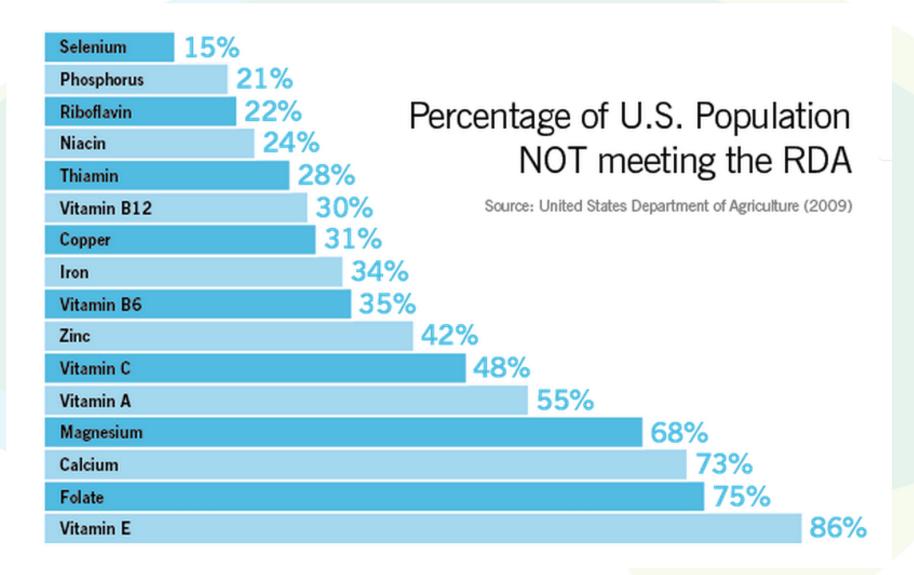
One part of maintaining a healthy brain is having a lot of <u>DIFFERENT</u> types of "GOOD BUGS" in your GI tract

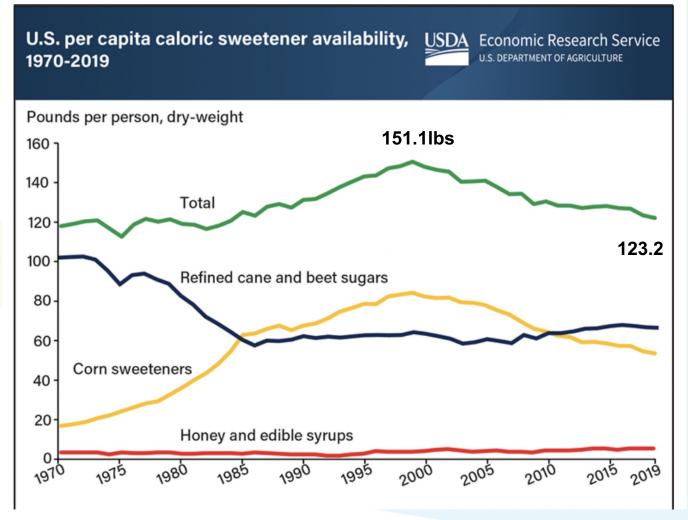
DREW RAMSEY MD

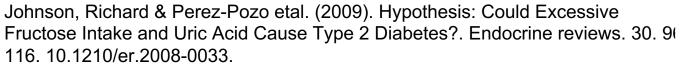
Dietary Change in last 100 years

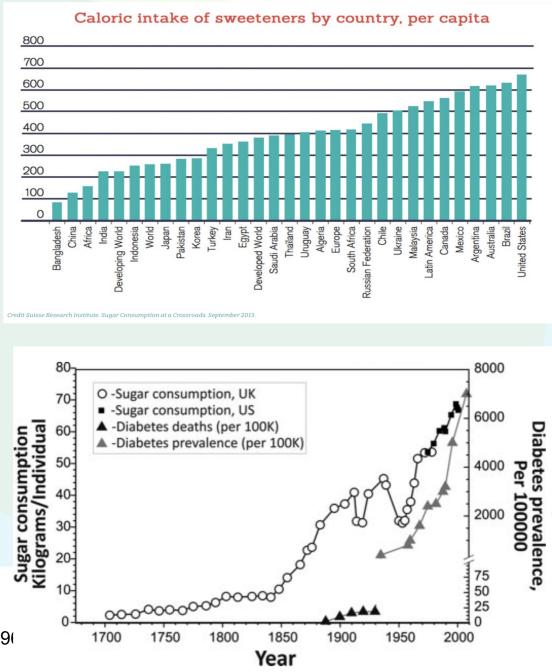


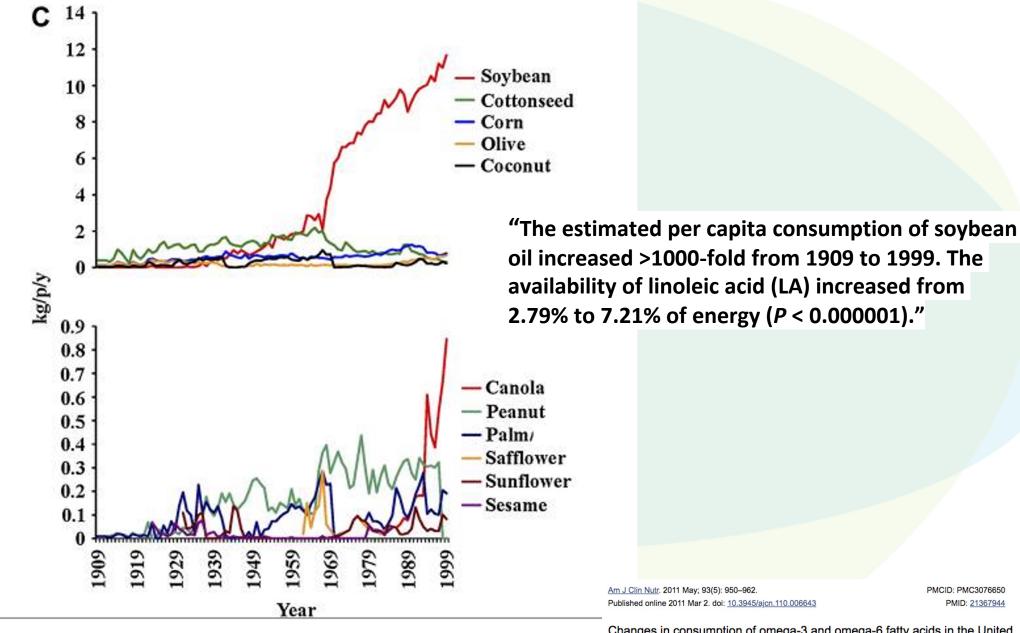
- Whole Food to Processed
- Sugar and Refined Carbs
- Animal to Vegetable Fats
- Omega-3 to Omega-6 fats?
- New Molecules: Food Dyes, Preservatives, Trans-fats











Changes in consumption of omega-3 and omega-6 fatty acids in the United States during the 20th century 1,2,3

The Rise of Vegetable Oils

Omega-3 – Omega-6

1 - 40

1 - 39





The Mediterranean Diet Does Good Food = Good Mood?

Table 2. Association Between Adherence to the Mediterranean Dietary Pattern and Risk of Depression

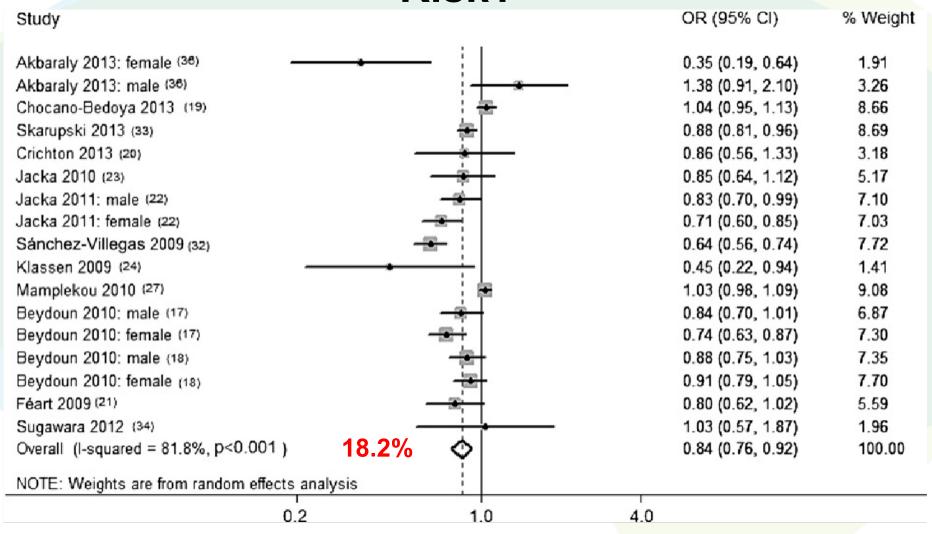
Variable	Adherence to the Mediterranean Dietary Pattern Score (Median Score)					P Value
	0-2 (2)	3 (3)	4 (4)	5 (5)	6-9 (6)	for Trend
No. of cases per person-years	126/8866	91/8253	97/9240	67/8131	99/9715	
Crude rates per 10 ³ (95% CI) ^a Model 1	14.2 (11.8-16.9)	11.0 (8.9-13.5)	10.5 (8.5-12.8)	8.2 (6.4-10.5)	10.2 (8.3-12.4)	
HR (95% CI) ^b Model 2	1 [Reference]	0.74 (0.57-0.98)	0.66 (0.50-0.86)	0.49 (0.36-0.67)	0.58 (0.44-0.77)	<.001
No. of cases per person-years HR (95% CI) ^b	67/8748 1 [Reference]	48/8167 0.73 (0.50-1.06)	46/9138 0.56 (0.38-0.83)	32/8061 0.42 (0.27-0.66)	44/9605 0.50 (0.33-0.74)	<.001
Model 3 No. of cases per person-years HR (95% CI) ^b	86/8726 1 [Reference]	65/8155 0.79 (0.57-1.09)	61/9116 0.67 (0.48-0.93)	50/8075 0.56 (0.39-0.80)	75/9631 0.69 (0.50-0.96)	.007

Model 1: sex, age, smoking status, BMI, physical activity, energy intake, employment

Model 2: Excluded Participants w/depression dx in first 2 years

Model 3: Excluded Participants with antidepressant on f/u, No DX

Does Dietary Pattern Influence Depression Risk?



An International Journal on Nutrition, Diet and Nervous

System

Volume 20, 2017 - Issue 3

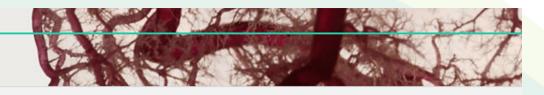
Original Articles

Dietary recommendations for the prevention of depression

R.S. Opie, C. Itsiopoulos, N. Parletta, A. Sanchez-Villegas, T.N. Akbaraly, A. Ruusunen & Pages 161-171 | Published online: 02 Mar 2016

- 1. Follow 'traditional' dietary patterns, such as the Mediterranean, Norwegian, or Japanese diet
- 2. Increase consumption of fruits, vegetables, legumes, wholegrain cereals, nuts, and seeds
- 3. Include a high consumption of foods rich in omega-3 polyunsaturated fatty acids
- 4. Replace unhealthy foods with wholesome nutritious foods
- 5. Limit your intake of processed-foods, 'fast' foods DREW RAMSEY Commercial bakery goods, and sweets.

BMC Medicine



About

Articles

Submission Guidelines

Abstract

Background

Methods

Results

Discussion

Conclusions

Declarations

References

Research article Open Access Open Peer Review

A randomised controlled trial of dietary improvement for adults with major depression (the 'SMILES' trial)

Felice N. Jacka M, Adrienne O'Neil, Rachelle Opie, Catherine Itsiopoulos, Sue Cotton, Mohammedreza Mohebbi, David Castle, Sarah Dash, Cathrine Mihalopoulos, Mary Lou Chatterton, Laima Brazionis, Olivia M. Dean, Allison M. Hodge and Michael Berk

BMC Medicine 2017 15:23

https://doi.org/10.1186/s12916-017-0791-y © The Author(s). 2017

Received: 31 August 2016 | Accepted: 11 January 2017 | Published: 30 January 2017

SMILES

- 12-week, parallel-group, single blind, RCT
- Adjunctive dietary intervention vs. social support "befriending" protocol
- 7 individual nutritional consulting sessions clinical dietician.
- N = 67 (diet intervention, n = 33; control, n = 34).
- Remission (MADRS score <10) 32.3% (n = 10) intervention and 8.0% (n = 2) controls respectively
- Number needed to treat (NNT) based on remission scores was 4.1 (95% CI of NNT 2.3–27.8).



Nutritional Neuroscience

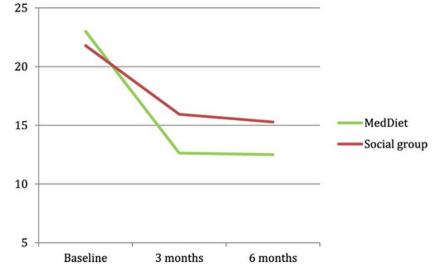
An International Journal on Nutrition, Diet and Nervous System

ISSN: 1028-415X (Print) 1476-8305 (Online) Journal homepage: https://www.tandfonline.com/loi/ynns20

A Mediterranean-style dietary intervention supplemented with fish oil improves diet quality and mental health in people with depression: A randomized controlled trial (HELFIMED)

Natalie Parletta, Dorota Zarnowiecki, Jihyun Cho, Amy Wilson, Svetlana Bogomolova, Anthony Villani, Catherine Itsiopoulos, Theo Niyonsenga, Sarah Blunden, Barbara Meyer, Leonie Segal, Bernhard T. Baune & Kerin O'Dea

Figure 4 DASS depression scores at baseline, 3 and 6 months.



- N = 152
- MedDiet cooking workshops for 3 months + low-dose fish oil 6 months vs. social groups for 3 months
- Depression scores improved by:
 - 45% in the MedDiet
 - 26.8% in the Social group.
- Changes sustained at 6 months.



JAMA Network

Original Investigation

March 5, 2019

Effect of Multinutrient Supplementation and Food-Related Behavioral Activation Therapy on Prevention of Major Depressive Disorder Among Overweight or Obese Adults With Subsyndromal Depressive Symptoms The MooDFOOD Randomized Clinical Trial

Mariska Bot, PhD¹; Ingeborg A. Brouwer, PhD²; Miquel Roca, PhD³; et alElisabeth Kohls, PhD⁴; Brenda W. J. H. Penninx, PhD¹; Ed Watkins, PhD⁵; Gerard van Grootheest, MSc¹; Mieke Cabout, MSc²; Ulrich Hegerl, PhD⁴; Margalida Gili, PhD³; Matthew Owens, PhD⁵; Marjolein Visser, PhD²; for the MooDFOOD Prevention Trial Investigators

N = 1025

12-month follow-up, 105 (10%) developed MDD:

25 (9.7%) in placebo without therapy,

26 (10.2%) in placebo with therapy,

32 (12.5%) in supplement without therapy

22 (8.6%) in supplement with therapy group.

None of the treatment strategies affected MDD onset.



"These results are the first to show that young adults with elevated depression symptoms can engage in and adhere to a diet intervention, and that this can reduce symptoms of depression."

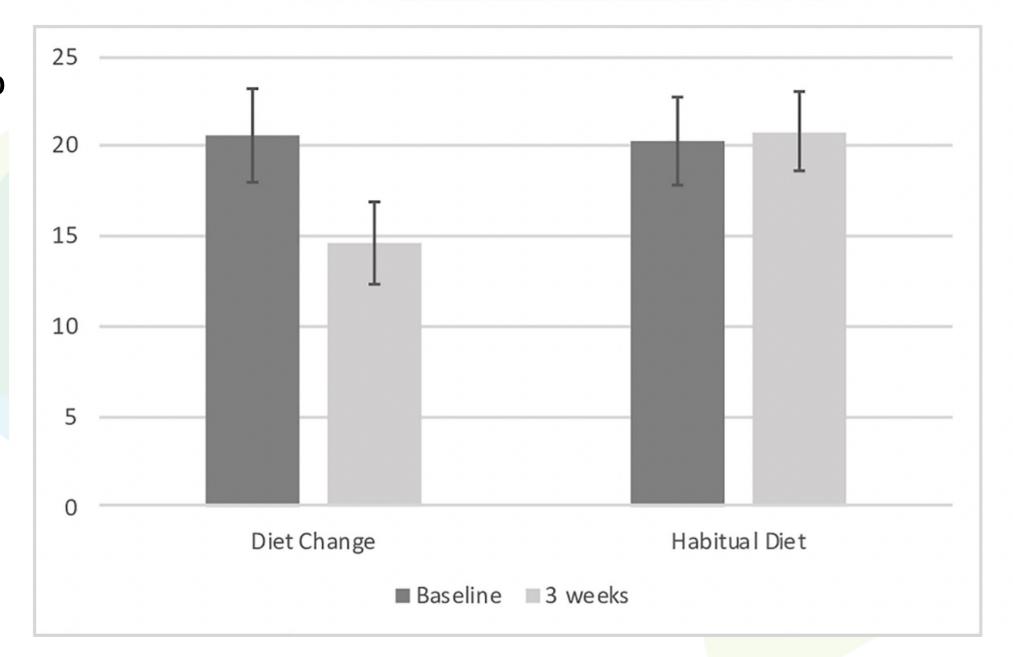
RESEARCH ARTICLE

A brief diet intervention can reduce symptoms of depression in young adults – A randomised controlled trial

Heather M. Francis 1*, Richard J. Stevenson¹, Jaime R. Chambers^{2,3}, Dolly Gupta¹, Brooklyn Newey¹, Chai K. Lim ⁴

1 Psychology Department, Macquarie University, Sydney, NSW, Australia, 2 Sydney Integrative Medicine, Level 1, Sydney, NSW, Australia, 3 Cooper St Clinic, Sydney, NSW, Australia, 4 Biomedical Sciences, Macquarie University, Sydney, NSW, Australia

CES-D



doi: 10.1093/ajcn/nqac106.

The effect of a Mediterranean diet on the symptoms of depression in young males (the "AMMEND: A Mediterranean Diet in MEN with Depression" study): a randomized controlled trial

Jessica Bayes ¹, Janet Schloss ², David Sibbritt ¹

100% of men have decreased symptoms
36% of men reach full remission
8 point improvement MEDAS → 20 point decrease in BD-II

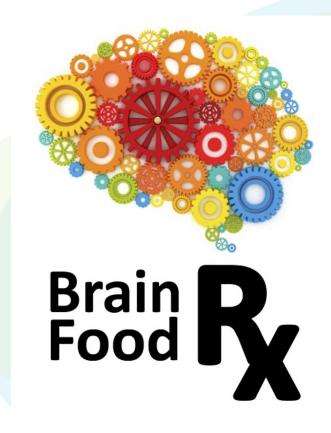


Olive Oil - 3 Tablespoons

LEGUMES!

Mechanisms

- 1. Nutrient deficiency/Insufficiency
- 2. Neuroplasticity and BDNF
- 3.Inflammation
- 4. Microbiome
- 5. Plants and phytonutrients
- 6.Toxic Diet Effects *trans-*fats, food dyes, increased medication load
- 7. Foodcebo Effect
- 8. Food Connection/Community
- 9.Empowerment/Self-Care



The Brain Food Clinic Feed Your Mental Health

- What is a Brain Food?
- Nutrient Density
- Dietary Patterns
- Neuroplasticity
- FOOD not supplements

TARGETS

Mood, Memory, Focus, Energy, Sleep,
 Cognitive Function



"Let's talk about what you eat."

NUTRITIONAL PSYCHIATRY ASSESSMENTA Day in the Life of an Eater

What's the **Dietary Pattern**? **Relationship** with Food? **Avoid Diet Dogma** in Clinical Practice!

High Yield Foods and Food Categories

Plants, Seafood, Meat, Snacks

MOTIVATIONS

Diagnosis, weight, internal or external?

FOOD SKILLS

COSA Cooking, Organizing, Sourcing, Access

SMART GOALS - Specific, Measurable, Achievable, Realistic and Timely

"I Eat a Healthy Diet....."

Count Calories
Avoid Cholesterol
Avoid Fat
No Red Meat
2 Glasses Red Wine





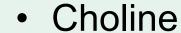
EAT TO BEAT DEPRESSION - SIMPLE SWAPS





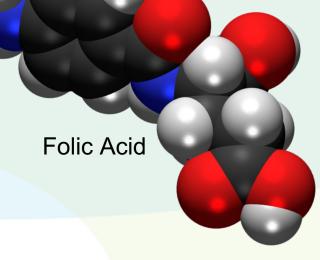
Brain Food Nutrients

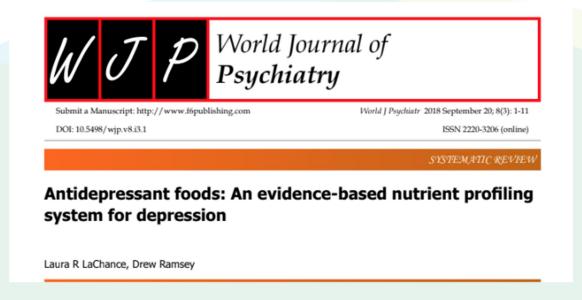
- Omega-3s
- Folates
- Fiber
- Vitamin B12
- Vitamin D
- Vitamin B1 (thiamine)
- Magnesium
- Calcium
- Vitamin E (Tocopherols & Tocotrienols)



• Iron

• Zinc







RESEARCH QUESTION

→ What are the most *nutrient dense* foods to prevent and promote recovery from depressive disorders?



The Antidepressant Food Scale

100 Calories



Top Plant Foods

- 1. Watercress
- 2. Spinach
- 3. Mustard, Turnip, or Beet Greens
- 4. Lettuces (red, green, romaine)
- 5. Swiss Chard
- 6. Fresh Herbs (basil, cilantro, parsley)
- 7. Chicory Greens
- 8. Pummelo
- 9. Peppers (bell, serrano, jalapeno)
- 10. Kale or Collards
- 11. Pumpkin
- 12. Dandelion Greens
- 13. Cauliflower
- 14. Kohlrabi
- 15. Red Cabbage
- 16. Broccoli
- 17. Brussels Sprouts
- 18. Acerola
- 19. Butternut Squash
- 20. Papaya

Top Animal Foods

- 1. Oysters
- 2. Liver and Organ Meats (spleen, kidney, heart)
- 3. Poultry Giblets
- 4. Clam
- 5. Mussels
- 6. Octopus
- 7. Crab
- 8. Goat
- 9. Tuna
- 10. Smelt
- 11. Fish Roe
- 12. Bluefish or Wolffish
- 13. Pollock
- 14. Lobster
- 15. Rainbow Trout
- 16. Snail or Whelk
- 17. Salmon
- 18. Herring
- 19. Emu
- 20. Snapper



EAT TO BEAT DEPRESSION - TOP NUTRIENTS



ZINC

PUMPKIN SEEDS (1/4 cup) 31%

> OYSTERS (6) 413%

GROUND TURKEY (3 oz) 23%

STEAK (5 oz) 175% SESAME SEEDS (¼ cup)



MAGNESIUM

ALMONDS (1 oz) 25%

SPINACH (½ cup)

CASHEWS (1 oz)

BLACK BEANS (½ cup)

SOYBEANS (½ cup) 16%



CLAMS (3 oz) 1401%

BEEF LIVER (3 oz) 1178%

MUSSELS (3 oz) 833% SARDINES (3 oz)

338% CRAB (3 oz) 127%



FIBER

NAVY BEANS (1 cup) 76%

LENTILS (1 cup)

TEMPEH (1 cup) 48%

RASPBERRIES (1 cup)

COLLARD GREENS (1 cup) 30%



IRON

PUMPKIN SEEDS (¼ cup) 47%

OYSTERS (3 oz) 44%

DARK CHOCOLATE (3 oz) 39%

SESAME SEEDS (¼ cup) 29%

SPINACH (½ cup) 17%



OMEGA3s

WILD SALMON (3 oz) 2172 mg

ANCHOVIES (3 oz) 1776 mg

SARDINES (3 oz) 1242 mg

> TUNA (3 oz) 808 mg

OYSTERS (3 oz) 511 mg



The number of healthy bacteria in a fermented food is quantified by CFUs (colony forming units). All these foods are rich in live cultures.

> KEFIR SAUERKRAUT YOGURT KOMBUCHA KIMCHI



PHYTONUTRIENTS

RED PEPPERS: Lycopene SWEET POTATO: Carotenoids BROCCOLI: Sulforaphanes BLUEBERRIES: Anthocyanins ONIONS: Quercetin



photos © www.123rf.com



Top Iron Foods (per 100 grams)



28mg (155%)



23 mg (129%)

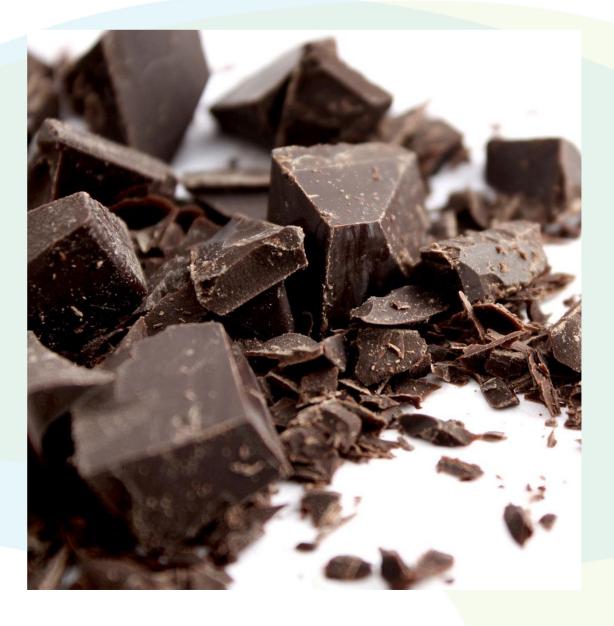


6.1mg (34%)



15mg (83%)





17mg (97%)

nature neuroscience

Article | Published: 26 October 2014

Enhancing dentate gyrus function with dietary flavanols improves cognition in older adults

Adam M Brickman, Usman A Khan, Frank A Provenzano, Lok-Kin Yeung, Wendy Suzuki, Hagen Schroeter, Melanie Wall, Richard P Sloan & Scott A Small

Nature Neuroscience 17, 1798–1803(2014) | Cite this article

923 Accesses | 133 Citations | 1242 Altmetric | Metrics

Controlled randomized trial

50-69-year-old subjects who consumed either a cocoa flavanol-containing diet for 3 months.

A high-flavanol intervention was found to enhance DG function, as measured by fMRI and by cognitive testing.

The New Hork Times

To Improve a Memory, **Consider Chocolate**



Cocoa flavanol extracted from fresh cocoa beans. Mars, Incorporated

By Pam Belluck

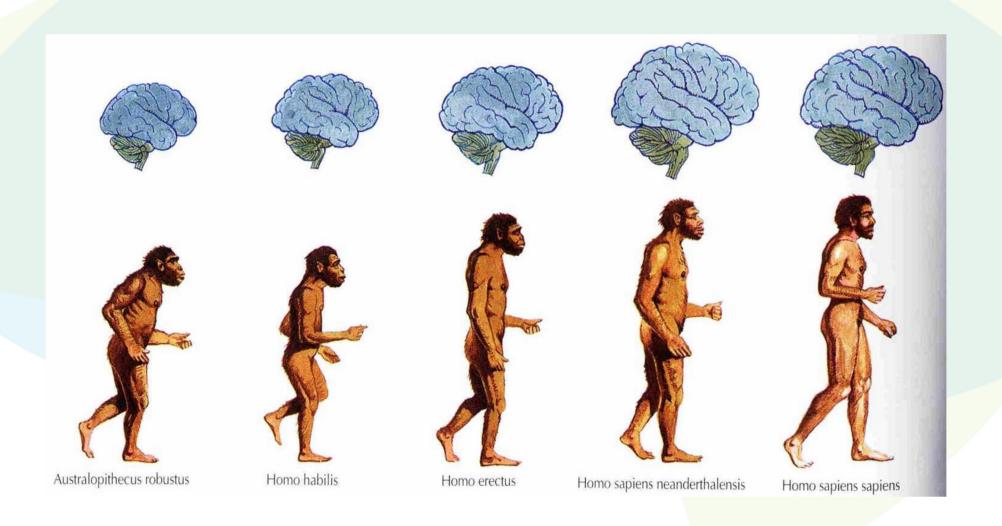
Oct. 26, 2014

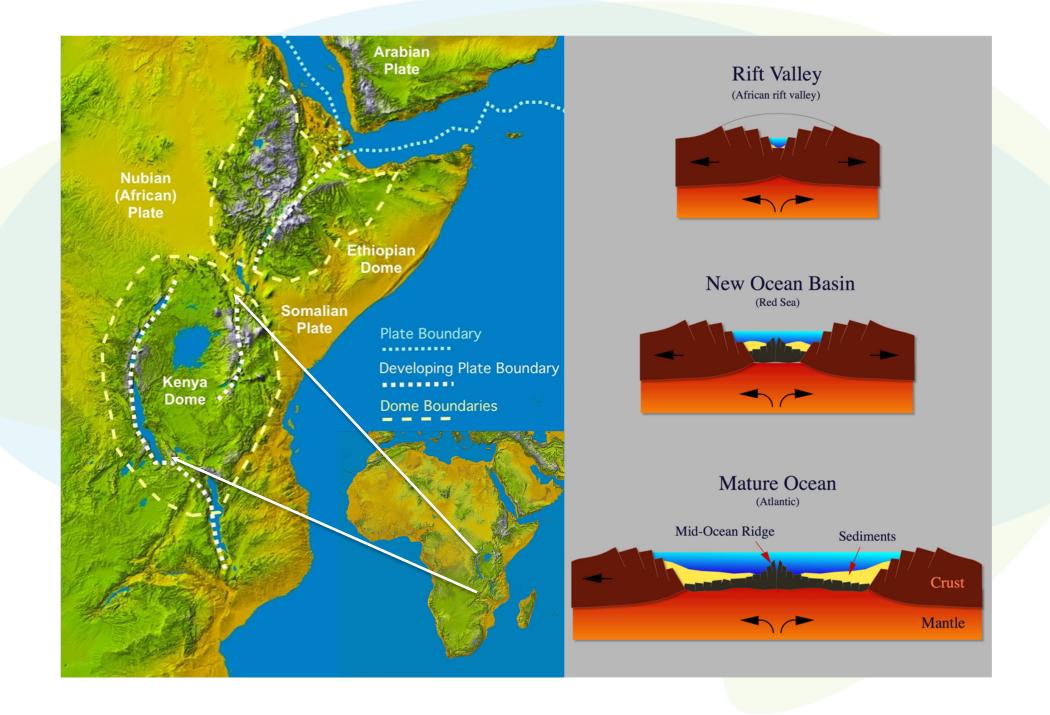


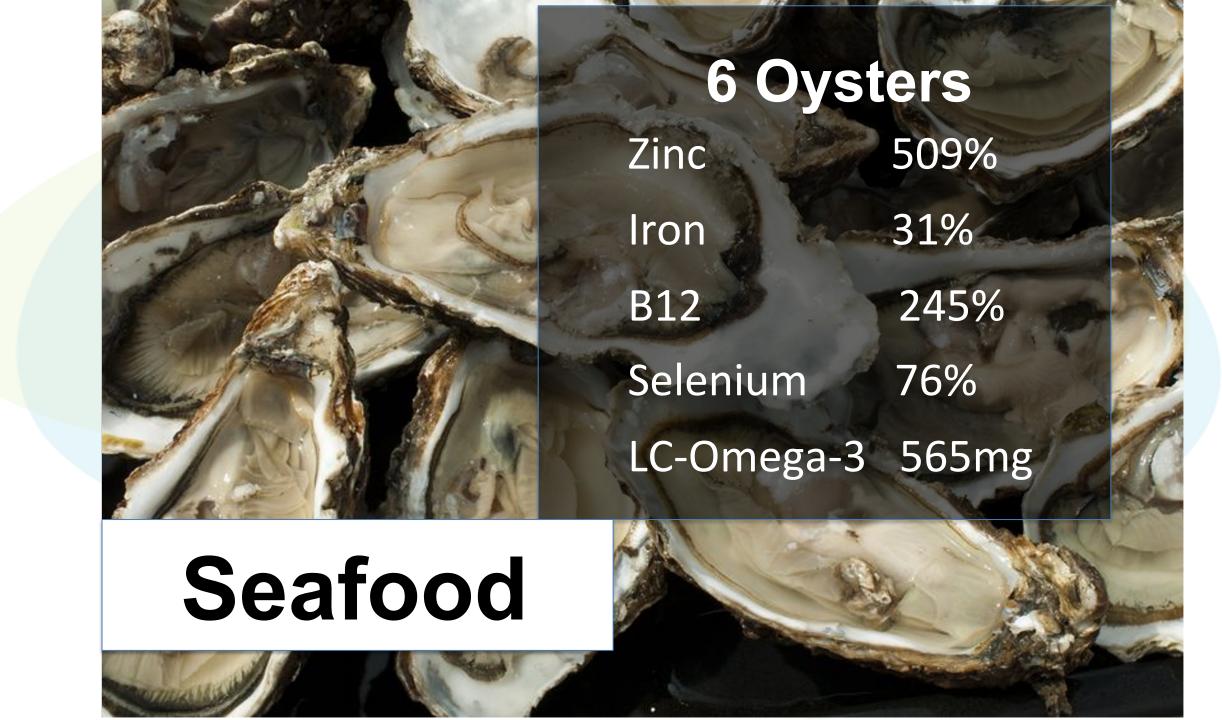


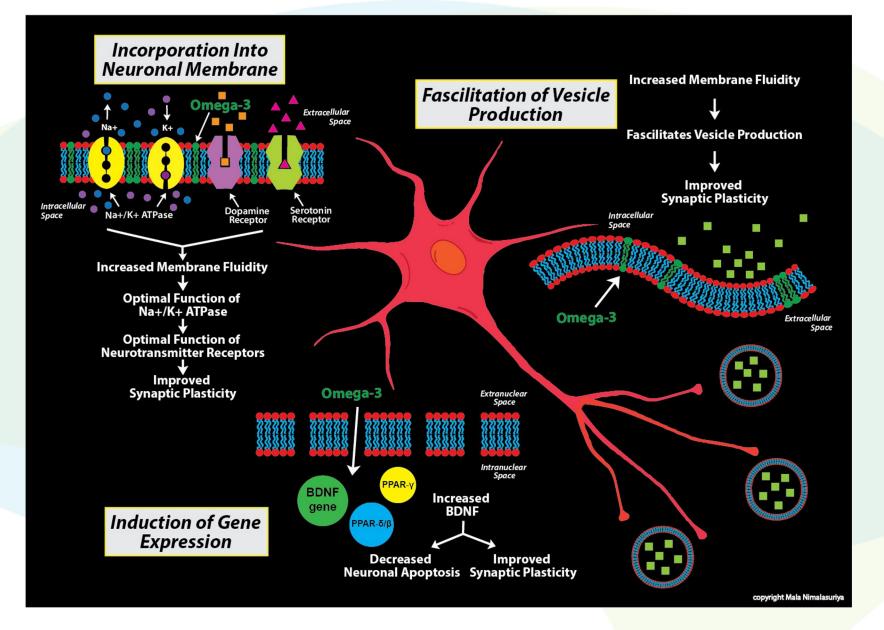


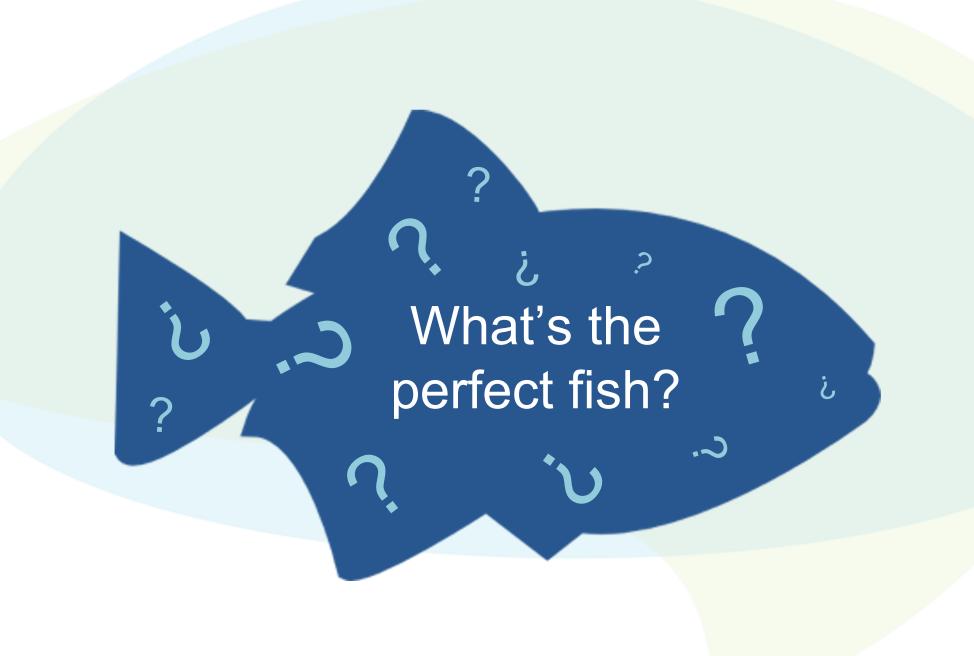
Survival of the Fattest











High Omega-3/Low Mercury Fish

Variety of Fish	Milligrams of EPA and DHA Per 4 Ounces of Cooked Fish	Micrograms of Mercury Per 4 Ounces of Cooked Fish
Mackerel*	1,350 – 2,100	8 – 13
Shad	2,300 – 2,400	5 – 10
Oysters	1,550	2
Salmon	2700 – 3500	2
Herring	2,300 – 2,400	5 – 10
Sardines	1,100 – 1,600	2
Anchovies	2,300 – 2,400	5 – 10
Rainbow Trout	1,000 – 1,100	11



Wild-Caught
Coho
Salmon
Fillet

Product of USA Previously frozen

\$AVE \$8

\$099 LB Reg. 17.99 lb

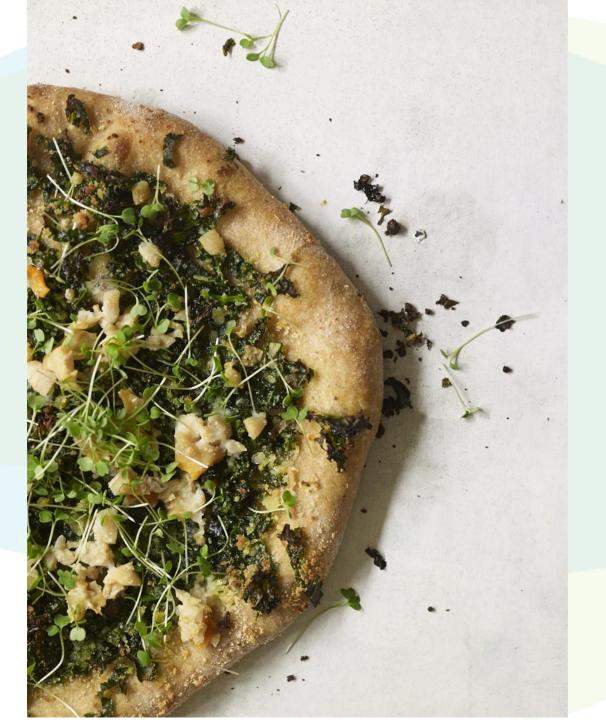


Photo by Ellen Silverman DREW RAMSEY MD





The Rule of Kale BRAIN FOOD =

Nutrient Density
Culinary Versatility
Local Availability

Leafy Greens: Practical Advice

- Massage thicker greens (kale) before eating raw
- Experiment many options, find ones you like
- Meal Prep: Sauté leafy greens in the beginning of the week
- Add a handful of leafy greens to every meal (eggs, smoothies)
- The Pasta Trick
- Organic matters
- Pesto
- Beet Greens



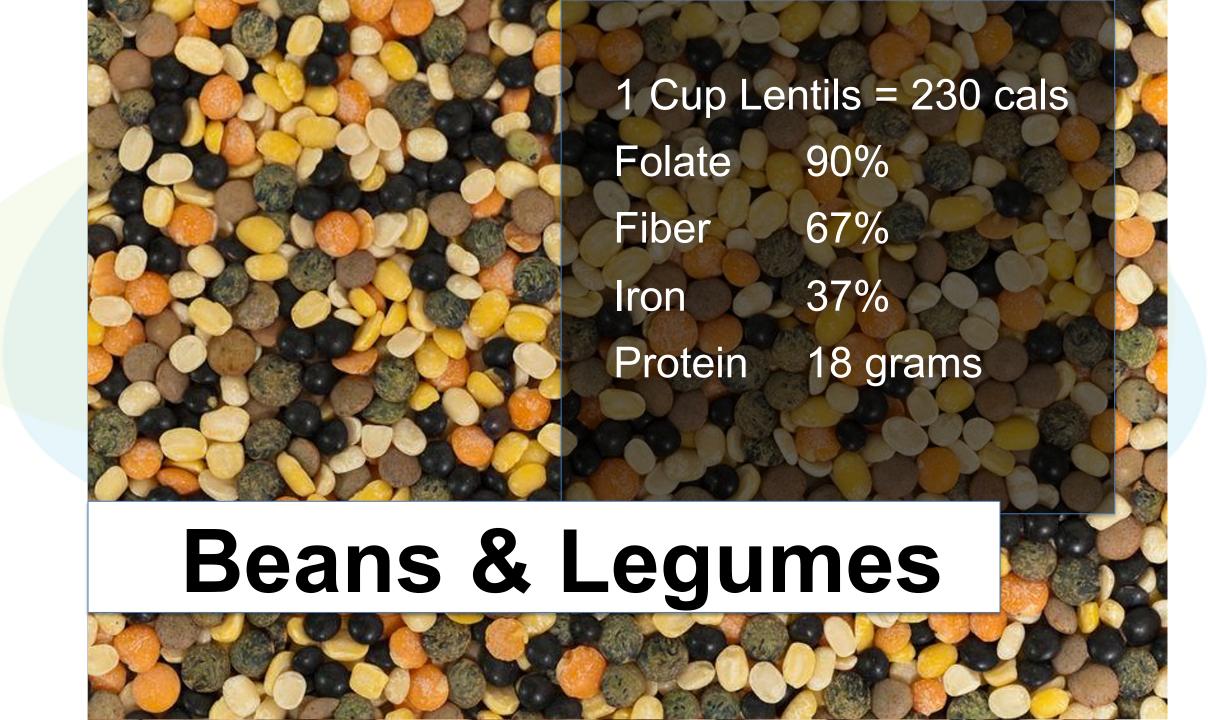


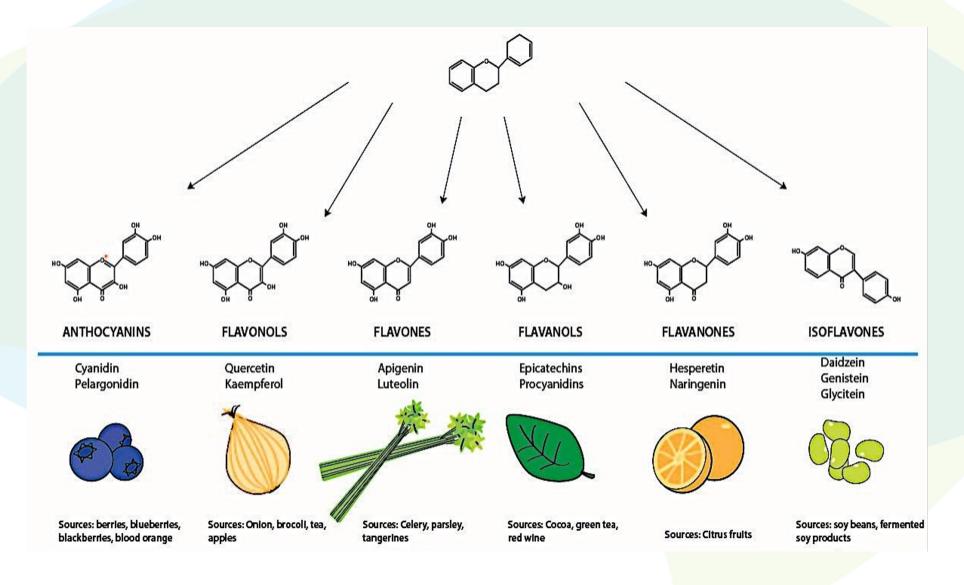


Photo by Ellen Silverman DREW RAMSEY MD



Photo by Ellen Silverman DREW RAMSEY MD

The Flavonoids



Rainbow Colors = Phytonutrients

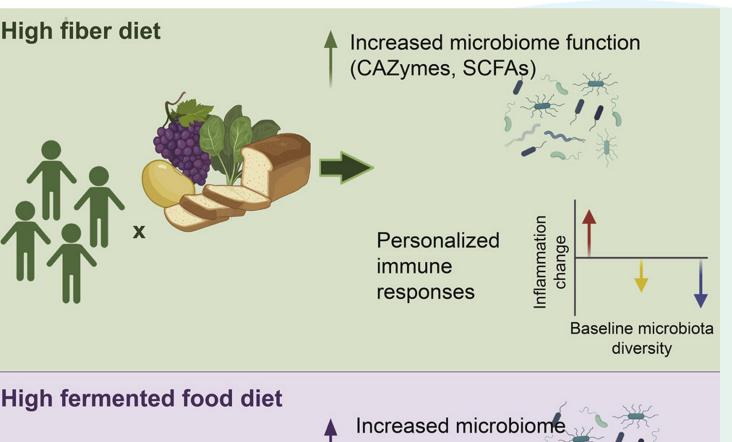






Six Servings Per Day?!







ARTICLE | VOLUME 184, ISSUE 16, P4137-4153.E14, AUGUST 05, 2021

Gut-microbiota-targeted diets modulate human immune status

Hannah C. Wastyk 7 • Gabriela K. Fragiadakis 7 • Dalia Perelman



diversity



Decreased inflammatory signals and activity





ORIGINAL ARTICLE

Adjunctive probiotic microorganisms to prevent rehospitalization in patients with acute mania: A randomized controlled trial

Faith Dickerson

Maria Adamos, Emily Katsafanas, Sunil Khushalani, Andrea Origoni, Christina Savage, Lucy Schweinfurth, Cassie Stallings, Kevin Sweeney, Joshana Goga, Robert H Yolken

First published: 25 April 2018 | https://doi.org/10.1111/bdi.12652 | Cited by: 8

Neurosci Biobehav Rev. 2019 Jul;102:13-23. doi: 10.1016/j.neubiorev.2019.03.023. Epub 2019 Apr 17.

Prebiotics and probiotics for depression and anxiety: A systematic review and meta-analysis of controlled clinical trials.

Liu RT1, Walsh RFL2, Sheehan AE2.



Journal of Affective Disorders

Volume 228, 1 March 2018, Pages 13-19



Review article

A meta-analysis of the use of probiotics to alleviate depressive symptoms



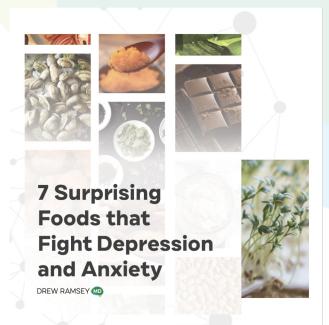




DREW RAMSEY MD







MENTAL FITNESS KITCHEN

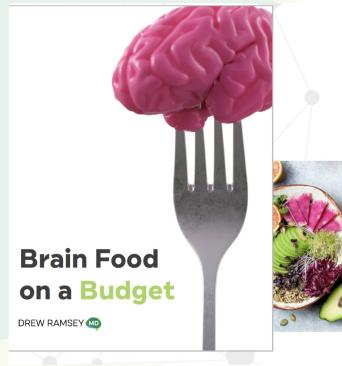
DREW RAMSEY MD



The Mental Fitness Kitchen gives people tools to support their mental health while fostering community. We know the impact that food can have on our wellbeing and have seen from numerous studies that learning these hands-on skills and putting them into practice in a connection with one another can greatly impact mental health, and can reduce symptoms of depression. When we get together in the kitchen and cook, it is nourishing on multiple levels.

Click to learn more







Can you eat to grow a better brain?

- BRAIN GROW!
- Dietary pattern and Nutrient Density
- Neuroplasticity and Inflammation
- Colors Fats Fun
- Don't be scared of fish! Remember Clams!
- Whole Foods, "Traditional" or Medi Protective for Depression, Anxiety, ADHD & Dementia?
- Learn from History
- Put the Genie Back in the Bottle



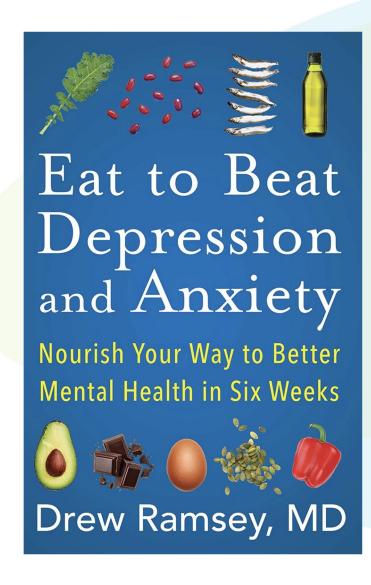
Ramsey Big 5 Nutritional Psychiatry

Self-Assessment (RB5NP-S)

- 1. Besides a salad, I eat greens as _____
- 2. My three favorite fiber foods?
- 3. I love to dip _____ in olive oil.
- 4. My Seafood meals this week will be ______.
- 5. This week I have eaten ____ CFUs.

Bonus: As an eater, I feel too much guilt about _____

and not enough JOY about_____.



Feed Your Mental Health!

The Brain Food Clinic
New Healing The Modern Brain ecourse
Nutritional Psychiatry Clinician Training
DrewRamseyMD.com
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