

Steps To Achieving Your Nutrition and Fitness Goals

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MULTIPLE SCLEROSIS

WEBINAR 
WEDNESDAYS

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UPCOMING PROGRAMS

NOVEMBER 6
CARE PARTNER MEETUP

NOVEMBER 13
JUMPSTART
How Consistency Fuels Healthy Habits

NOVEMBER 18
YOUR QUESTIONS ANSWERED
Diet and Exercise

DECEMBER 4
BLACK COMMUNITY MEETUP



CANDO-MS.ORG

How to Ask Questions During the Webinar

Type in your questions
using the Questions Box



Provide comments and engage
with the speakers and audience
using the **Chat Box**

NEW! Closed captioning

YOUR SPEAKERS



Ilana Katz Sand
Neurologist

New York



Gretchen Hawley
Physical Therapist

New York

LEARNING OBJECTIVES



- 1 Learn how healthy nutrition and physical activity impact MS and overall wellness
- 2 Learn about the advantages of consistency over intensity
- 3 Review tips for successful goal setting and become familiar with healthcare and community professionals who can help



POLLING QUESTION

What are your goals for nutrition and activity?

- a) Lose weight
- b) Have more energy
- c) Exercise more regularly
- d) Eat a healthier diet
- e) Reduced symptoms
- f) Be able to participate in more activities
- g) Other....put it in the chat!

LEARNING OBJECTIVES

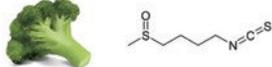
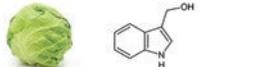
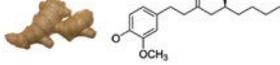
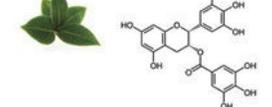
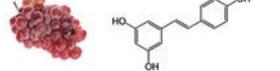
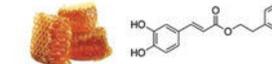
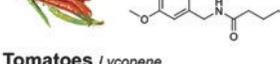
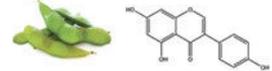


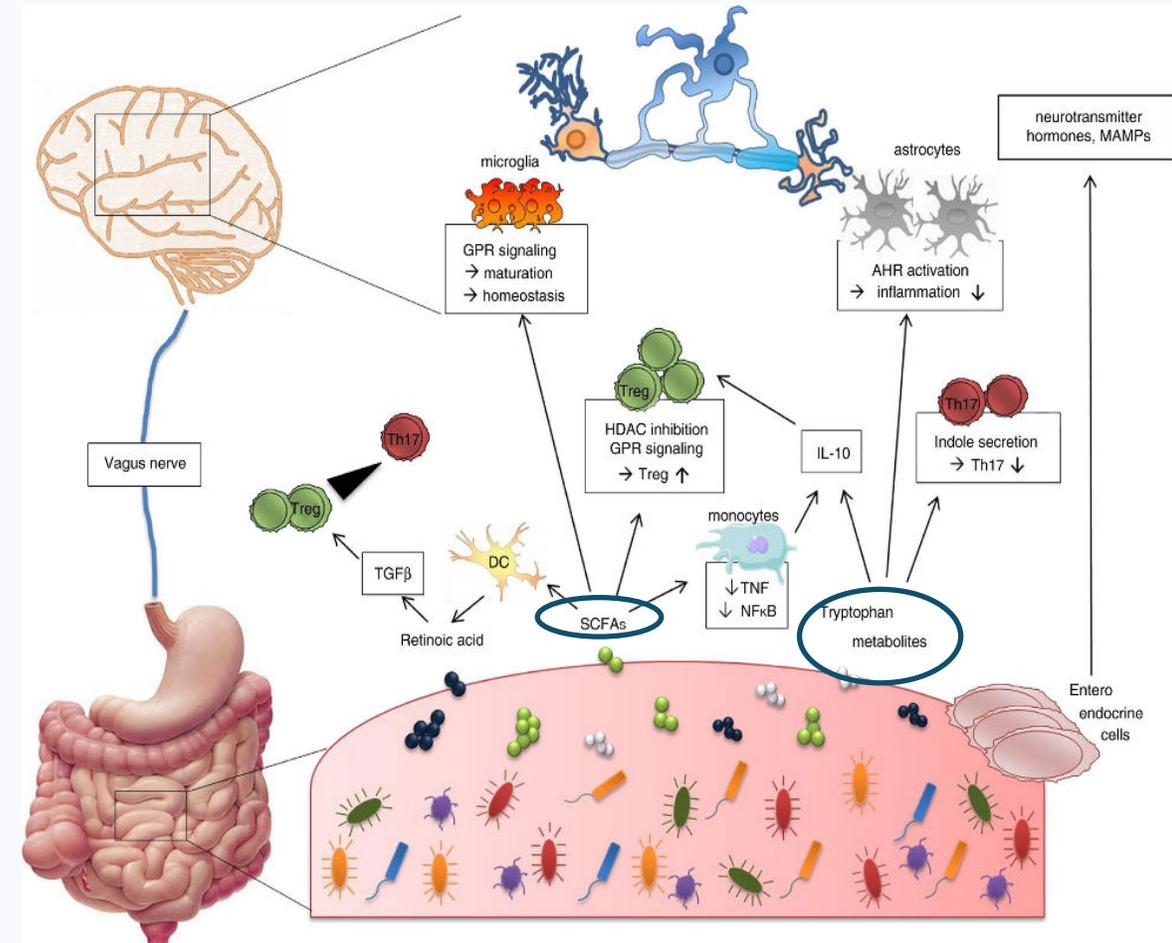
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Potential Mechanisms for Dietary Effects

- Indirect effects mediated by comorbidities associated with worse outcomes
 - Obesity
 - Cholesterol levels
 - Other vascular risk factors
- Effects directly related to diet
 - Direct effects of dietary metabolites
 - Effects mediated through the gut microbiota
 - Effects on microbial composition
 - Induction of metabolite production by gut microbiota

Communication Pathways of the Gut-Brain Axis

<p>Broccoli Sulphoraphane)</p> 	<p>Cabbage SIndole-3carbinol</p> 
<p>Garlic Diallyl sulphide</p> 	<p>Ginger Gingerol</p> 
<p>Green Tea Epigallocatechin-3gallate</p> 	<p>Grapes Resveratrol</p> 
<p>Honey Caffeic acid phenethyl ester</p> 	<p>Chilli peppers Capsaicin</p> 
<p>Soybeans Genistein</p> 	<p>Tomatoes Lycopene</p> 
<p>Tumeric Curcumin</p> 	



LETTER

doi:10.1038/nature12820

Diet rapidly and reproducibly alters the human gut microbiome

Lawrence A. David^{1,2†}, Corinne F. Maurice¹, Rachel N. Carmody¹, David B. Gootenberg¹, Julie E. Button¹, Benjamin E. Wolfe¹, Alisha V. Ling³, A. Sloan Devlin⁴, Yug Varma⁴, Michael A. Fischbach⁴, Sudha B. Biddinger³, Rachel J. Dutton³ & Peter J. Turnbaugh¹

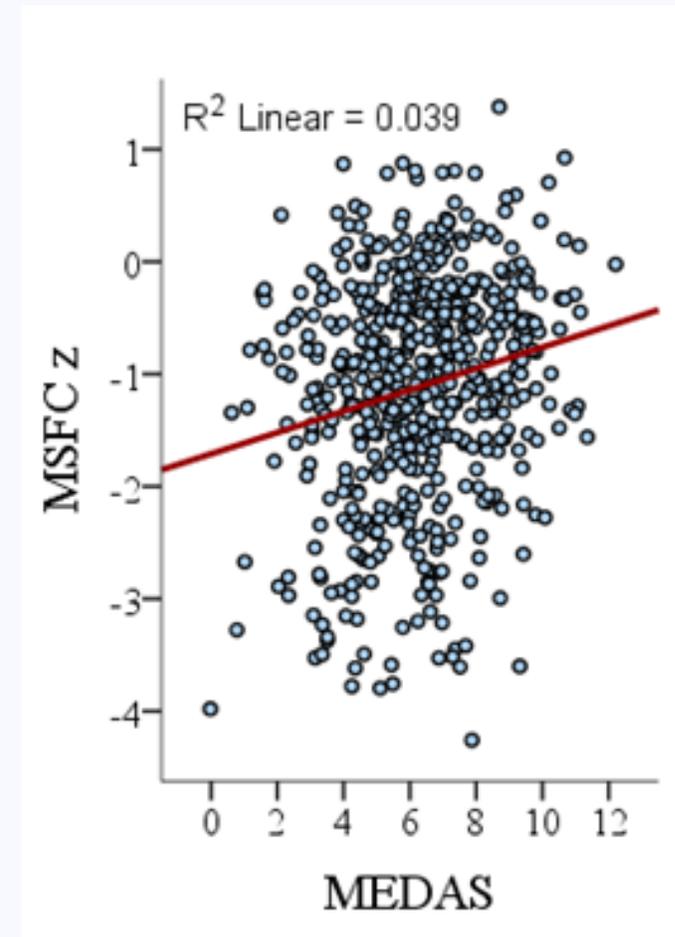
<http://triwellnesscenter.com/rainbow-of-wellness/>

Haase, et al. *Immunology* 2018

Higher Mediterranean Diet Alignment Is Associated With Lower MS-Related Disability

Multiple Regression adjusting for All Demographic and Health-Related Covariates

Predictor	B	95% CI		β	p
Constant	-1.655	-2.368	-0.941		<0.001
AGE	-0.046	-0.054	-0.038	-0.43	<0.001
SEX	0.381	0.194	0.569	0.14	<0.001
RACE	0.422	0.209	0.634	0.16	<0.001
ETHN	0.151	-0.095	0.396	0.05	0.228
SES	0.017	0.012	0.022	0.26	<0.001
BMI	0.004	-0.011	0.020	0.02	0.570
MVPA	0.002	-0.002	0.006	0.04	0.235
SLEEP	-0.187	-0.358	-0.017	-0.08	0.032
HTN	0.212	-0.034	0.458	0.07	0.091
DM	-0.090	-0.531	0.350	-0.02	0.687
HLD	0.135	-0.099	0.368	0.04	0.258
SMOKE	-0.142	-0.327	0.043	-0.05	0.131
MEDAS	0.095	0.055	0.134	0.18	<0.001



Secondary Analysis: MSFC Components & PROs

Outcome	B	95% CI		β	p
MSFC	0.095	0.055	0.134	0.18	<0.001
SDMT	0.869	0.458	1.279	0.17	<0.001
NHPT	-0.392	-0.584	-0.199	-0.17	<0.001
T25FW	-0.077	-0.121	-0.033	-0.14	0.001
MSIS-20	-0.993	-1.609	-0.377	-0.13	0.002
FSS	-0.102	-0.170	-0.034	-0.13	0.003
MSWS	-1.312	-2.108	-0.516	-0.13	0.001
PDQ	-0.056	-0.091	-0.022	-0.13	0.001
HADS-D	-0.234	-0.362	-0.105	-0.15	<0.001
HADS-A	-0.190	-0.338	-0.042	-0.11	0.012

Dietary Patterns With Clinical Trial Evidence for Benefits for Symptom Management in MS

- Swank diet (low saturated fat)
- Modified paleolithic (Wahls protocol)
- McDougall diet (plant-based, very low fat)
- Caloric restriction/intermittent fasting
- Ketogenic diet
- Mediterranean/MIND diet

Pilot Study of Modified Mediterranean Diet in Women With MS

- 36 women with MS were randomly assigned to follow the intervention or continue usual habits
- Dietary intervention participants lost a small amount of weight (approximately one pound per month)
- Benefits in the intervention group compared to the non-intervention group with respect to:
 - Impact of MS symptoms on daily life (MSIS-29)
 - Fatigue
 - Disability score

Current Recommendations by the NMSS Wellness Research Working Group

- Prepare meals at home as much as possible
- Incorporate colorful fresh fruits and vegetables daily
- If you choose to eat grains, choose whole grains over refined grains
- Avoid/limit processed foods and added sugars as much as possible
- <https://www.nationalmssociety.org/Living-Well-With-MS/Diet-Exercise-Healthy-Behaviors/Diet-Nutrition>

Physical Activity & MS

- Symptoms that physical activity can help with:
 - spasticity
 - strength
 - balance
 - walking
 - vertigo
 - fatigue...
- Is it possible to get stronger/walk better with MS? How?
 - Neuroplasticity



Physical Activity & MS

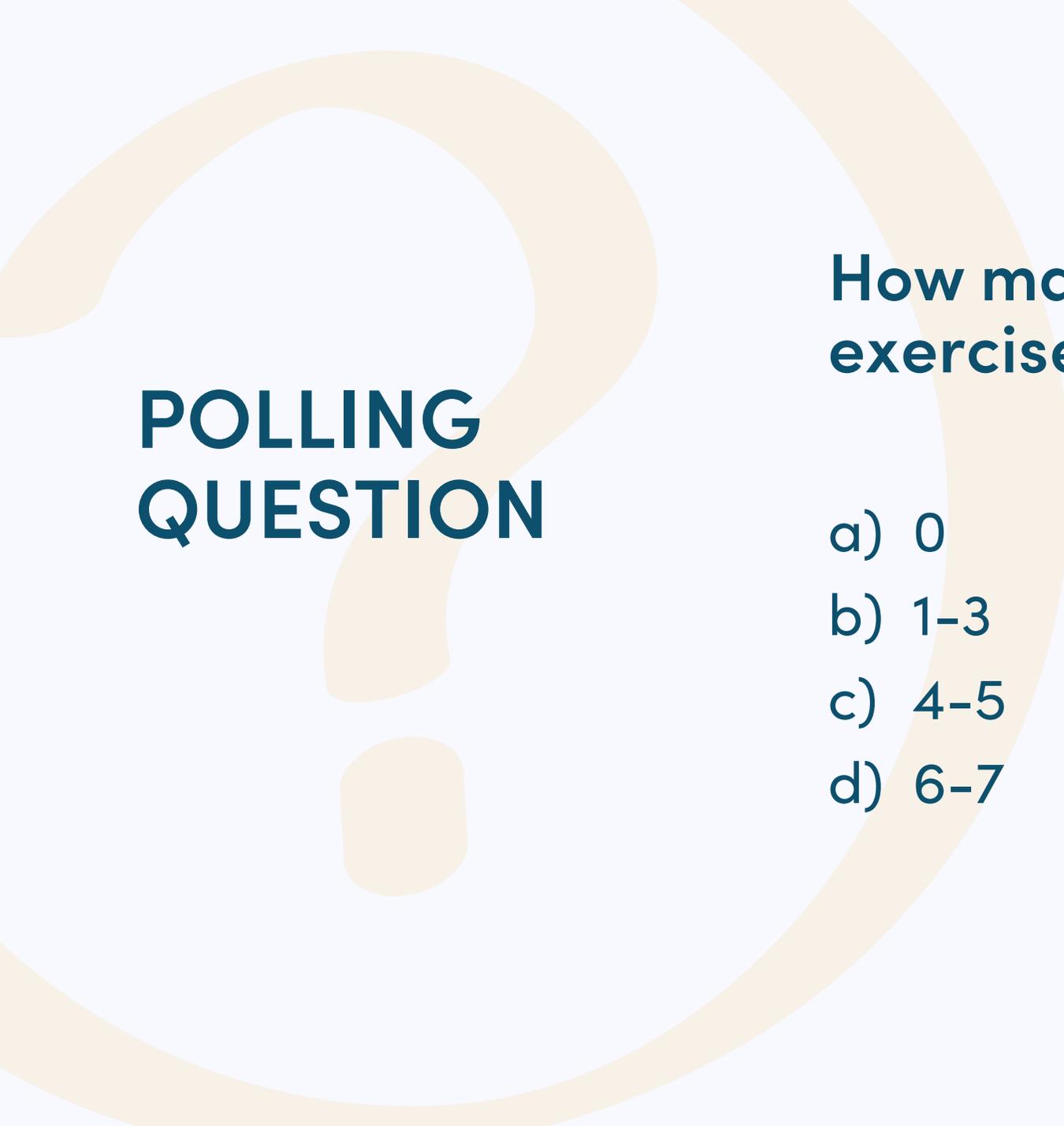
- “Regular” exercise vs. Functional exercise
 - The difference between get stronger, but no improvements in walking & gaining strength + mobility



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POLLING QUESTION

How many days a week do you exercise?

- a) 0
- b) 1-3
- c) 4-5
- d) 6-7

Consistency vs. Intensity

- What does doing something “consistently” mean? →
- Activity tips for consistency:
 - Exercise snacks
 - Change positions (seated, standing, lying)
- Mobility demo of seated exercises

CONSISTENCY

What we think it means



What it actually means



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POLLING QUESTION

**What gets in the way of you
accomplishing your goals?**

- a) Work
- b) Family
- c) Fatigue
- d) Cognitive challenges
- e) Financial constraints
- f) Knowledge about what to do
- g) Lack of support
- h) Other... put it in the chat!

Getting Started With Dietary Changes

- Think about your goals and the steps you can take to achieve them, consider “SMART” framework
 - Short-term
 - Long-term
- Include your household in your plans
- Aim to make positive changes that will become your lifestyle, rather than looking for a “diet”
- Practice makes progress
- Ask for help:
 - Talk to your primary care doctor
 - Arrange a visit with a dietitian
 - Ask if your MS Center has a staff member who is able to counsel about diet
- Be kind to yourself!

Managing Accessibility and Financial Concerns

- Accessibility
 - Look up farmer's markets in your area
 - Consider a grocery delivery service
 - Make good use of the freezer
- Managing the cost of healthy foods
 - Budget-minded shopping: frozen vegetables and fruits, canned beans, pantry foods (oats, lentils, nut butters), eggs, canned fish, weekly sales and specials, big box stores
 - Local food pantries, community kitchens
 - Budget-focused recipes
 - Making good use of leftovers
 - SNAP and other benefit eligibility

Tips for Implementing and Maintaining a Healthy Diet While Managing Fatigue

- Meal planning
 - Meal prep at times when you have more energy
 - Utilize the freezer
- Grocery delivery service
- Simple meals
 - Sheet pan
 - “one pot”
 - “set it and forget it” slow cooker, air fryer, etc.
- Pre-chopped and/or pre-measured ingredients
- Meal kits and other “shortcuts”
- Don’t be afraid to ask family and friends to help!
- And keep in mind that a healthy diet will help you manage your fatigue better!

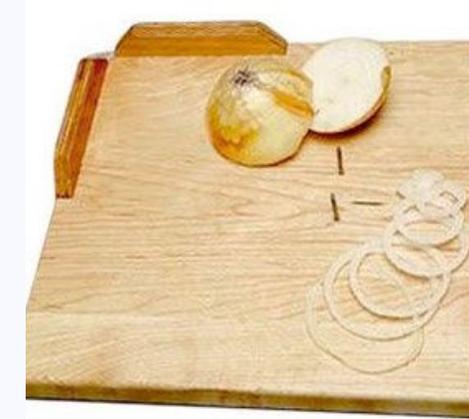


Tips for Implementing and Maintaining a Healthy Diet While Managing Cognitive Issues

- Prepare ahead
 - plan meals and snacks ahead of time, record your plans in an app or notepad
 - keep a grocery list with weekly basics on hand, consider a grocery app for “re-order” function
- While cooking
 - Set out measured ingredients before you start actually cooking (“mise en place”)
 - Set timers for every time sensitive step
 - Check off recipe steps as you complete each one
- Keep it simple
 - Use “shortcuts” when possible to reduce the number of steps needed
 - Have a number of “go to” meals that you have prepared before

Tips for Implementing and Maintaining a Healthy Diet While Managing Mobility and Coordination Issues

- While cooking
 - Adaptive cooking utensils
 - Cooking gadgets (slow cooker, air fryer)
 - Sit down for steps where that is possible
 - Use a cart to move items around the kitchen
 - Take breaks
- While eating
 - Adaptive plates, bowls, and utensils
- Consider working with an occupational therapist



Goal Setting & Physical Activity

- What's realistic for you?
 - How much time?
 - How many exercises?
 - Before/after work?
 - Lunch break?
 - Rest time?
- What are your preferences?
 - Classes?
 - Individual exercises?
 - Experiences (swimming, tai chi, etc.)



Goal Setting & Physical Activity

SMART

(Specific, Measurable, Achievable, Relevant, and Time-bound goals)

Example:

S - Increase walking strength & endurance

M - by building up to walking 20 minutes per day

A - starting with 5 minute walks, 2x/day

R - to walk around the park with my family

T - in the next 6 months

Who Can Help?

- Neurologist
 - Dietician
 - PCP
- Physical Therapist
 - Personal trainer
- Silver sneakers/online programs (MS Moves)
 - Therapist/psychologist
 - Family/friends

Q+A



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