



WEBINAR   
WEDNESDAYS

# Emerging Wellness Research: Key Takeaways & Ideas for You

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# DECEMBER PROGRAMS

WEBINAR – Jan 5

*How to Eat Well with MS (And Actually Enjoy It!)*

JUMPSTART – Jan 13

*Get Started With New Habits*

YOUR QUESTIONS ANSWERED – Jan 18

*Diet & Nutrition*

SPECIAL WEBINAR - Jan 19

*COVID-19: An Update on the Current Landscape*

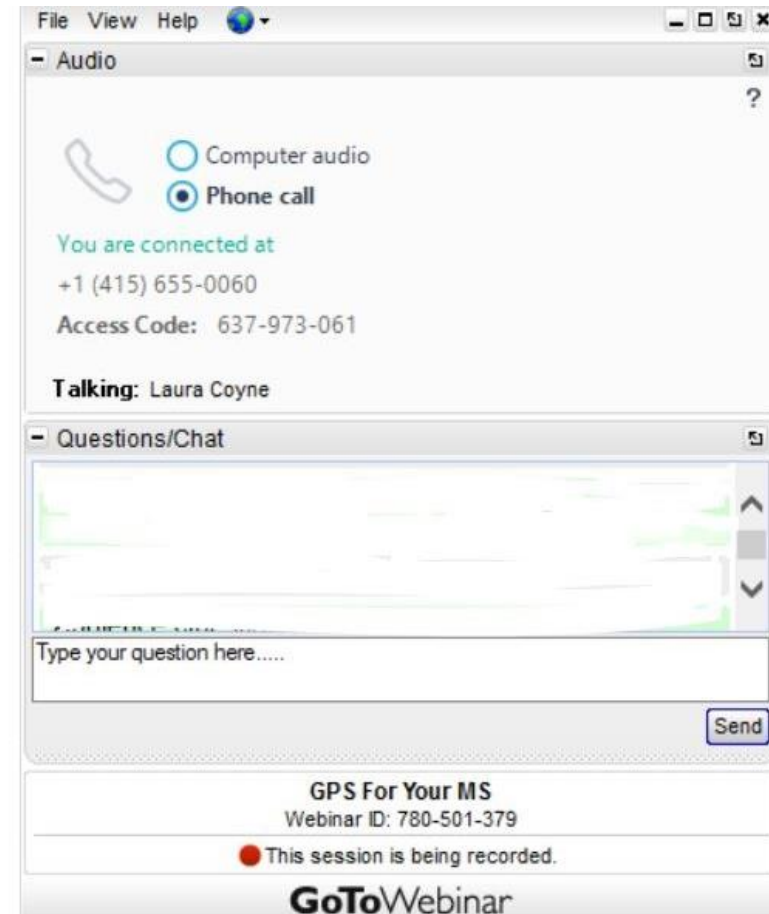
COACHING 4-WEEK SERIES, PT 1 – Jan 19

*Making Diet Changes that Stick*

[CanDo-MS.org](https://www.CanDo-MS.org)

# How to Ask Questions During the Webinar

Type in your questions using the **Questions/Chat** box



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# Learning Objectives

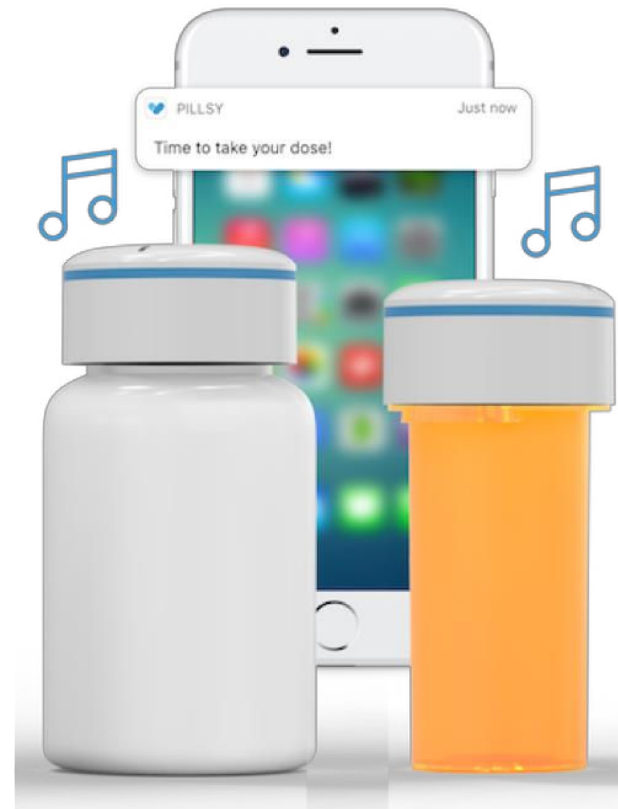
Participants and support partners will be able to:

- Summarize recent findings on diet, pain, and tools for everyday life
- List at least 3 pandemic growth tips for people with MS
- Describe the way that depression and vascular health conditions interact
- Describe the benefits of exercise, including high intensity interval training, for people with MS

# Tools and Gadgets

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- **Electronic Pill Bottle & Cap** – Non-invasive monitoring and helps improve adherence to oral DMTs
  - Pillsy™ Smart Bottle and Pill Cap
- **Light Therapy** – Safe, feasible, and well-tolerated in people with MS associated fatigue





# Tools and Gadgets

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- **Augmented Cane** – Self-navigating smart cane



# Tools and Gadgets

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- **Walking Bike Without Pedals – The Alinker**



# Pain and MS

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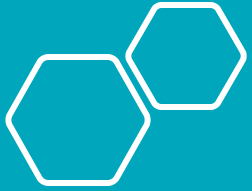
- 50-60% of people with MS experience pain
- Pain can come from MS and other sources
- Chronic pain usually requires a multi-modal approach
- Rehabilitation and other behavioral interventions can help treat pain and improve function.
  - Relaxation
  - Cognitive Behavioral Therapy
  - Mindfulness Training





## Diet and Nutrition

- Increasing evidence suggests that lifestyle factors such as diet and exercise impact the risk and course of MS.
- There are no diets that have been studied well enough to prove that they improve traditional MS outcomes (relapses, MRI outcomes, etc.).
- It is known that eating a healthy diet will minimize comorbidities.
- Stay informed.
  - <https://www.nationalmssociety.org/Living-Well-With-MS/Diet-Exercise-Healthy-Behaviors/Diet-Nutrition/Dietary-Studies-in-MS>



# Diet & Nutrition Research

## Swank & Wahls Diets – 2021 Update

- People on **BOTH** diets had:
  - **Less fatigue** compared to before the trial
  - Improvements in **quality of life**, **information processing speed**, and **walking distance**

# “If you can’t control the wind, adjust your sails”

Tips for post-pandemic benefit finding from young adults (18-45)  
living with MS

**Existential**  
Growth

**Relationship**  
Growth

**Personal**  
Growth

# EXISTENTIAL GROWTH

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- Learn the art of patience and small, caring gestures
- Slowing down allows for unexpected discoveries
- Let go of control and embrace vulnerability to discover some new positives
- Freedom = choosing responsibly your own life and wellness

# RELATIONSHIP GROWTH

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- Receiving but also giving support helps us move forward
- Don't forget or take for granted the affection of those around you



# PERSONAL GROWTH

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- Take care of yourself – body and mind
- You have the right to express and satisfy your needs
- Pursue your goals with determination
- Recognize and nurture your strengths; value yourself
- Do not fear silence and solitude; self-knowledge can emerge and grow
- Do not regret what you do not have; in its absence you can rediscover the value of what you have left or can recover [or discover for the first time]

# Depression and Vascular Conditions

- Depression is a common symptom of MS
- Depression increases the risk of vascular conditions (high blood pressure and cholesterol, and diabetes) and contributes to a shortened lifespan
- Vascular conditions can hasten disease progression and shorten the lifespan for people with MS
- **Key take-aways**
  - Diagnosing and treating depression can reduce your risk of vascular conditions
  - Diagnosing and treating vascular conditions can prolong your life and slow disease progression
  - Depression and vascular conditions are ***highly manageable***



# Physical Activity

## Recommendations

**150 minutes moderate intensity exercise/physical activity per week... OR**

**75 minutes of vigorous intensity exercise/physical activity per week...OR**

**Combination of both**

## Barriers

**Time  
Fatigue**

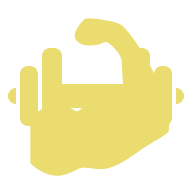
**Motivation  
Changing Clothes  
Equipment**

**Heat Sensitivity  
Schedule**

# Periodic exercise may be just as effective as continuous exercise

HIIT

Exercise Snacks



# Exercise Snacks vs High Intensity Interval Training

## Exercise Snacks

Variety of exercise completed intermittently throughout the day

Examples: Neck stretch, mini squats, walking lap around the house, seated rows

Can Do MS Exercise Snacks

## HIIT

Short bouts of very high intensity exercise, repeated with a series of lighter moments of movement

Focused on cardiovascular and respiratory fitness

# HIIT to be FIT: Current Knowledge

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- Animal models of MS, 6 weeks of HIIT, indicated improved biomarkers for maintaining myelination
- Reduced relapse rate over 24-week period and beyond
- Effectiveness in inpatient and outpatient settings
- Improved cardiovascular (HR, VO<sub>2</sub>) fitness, glucose and insulin sensitivity
- Minimal adverse reactions (pain)

# HIIT to be FIT: Unanswered Questions

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- Appropriateness for all abilities and stages of MS?
- Cardiovascular effects?
- Extent of impact on symptoms?
- Neuroprotective or anti-inflammatory effects?
- Adherence?
- Modes?
- Injury risk?
- Intensity?

## RATE OF PERCEIVED EXERTION

10	<b>Max Effort Activity</b> Feels almost impossible to keep going. Completely out of breath, unable to talk. Cannot maintain for more than a very short time.
9	<b>Very Hard Activity</b> Very difficult to maintain exercise intensity. Can barely breathe and speak only a few words.
7-8	<b>Vigorous Activity</b> Borderline uncomfortable. Short of breath, can speak a sentence.
4-6	<b>Moderate Activity</b> Breathing heavily, can hold a short conversation. Still somewhat comfortable, but becoming noticeably more challenging.
2-3	<b>Light Activity</b> Feels like you can maintain for hours. Easy to breathe and carry a conversation.
1	<b>Very Light Activity</b> Hardly any exertion, but more than sleeping, watching TV, etc



# Tips to Starting HIIT with MS

1

Talk with your  
healthcare  
provider(s)

2

Become comfortable  
with RPE scale and  
find an accessible  
mode of exercise

3

Avoid HIIT on  
consecutive days

# Sample HIIT Routine

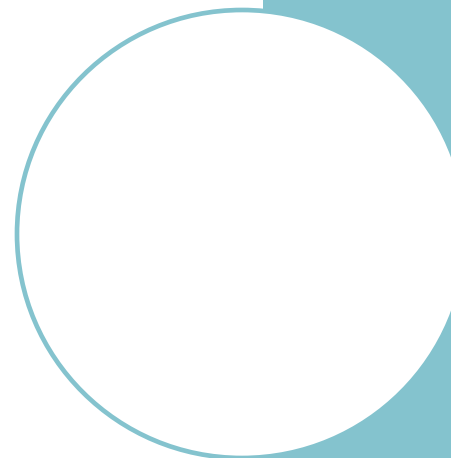
- **Warm Up:** 2-3 minutes; 2-3/10
- **HIIT:** 20-second interval; 8-10/10
- **Shift down:** 2-3-minutes; 3-4/10
- **HIIT:** 20-second interval; 8-10/10
- **Shift down:** 2-3-minutes; 3-4/10
- **HIIT:** 20-second interval 8-10/10
- **Cool Down:** 2-3 minutes; 2-3/10
- **\*\*Pre/post cooling!**

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**Remember:**

***Research is ongoing in many areas of MS health and wellness***



Q & A

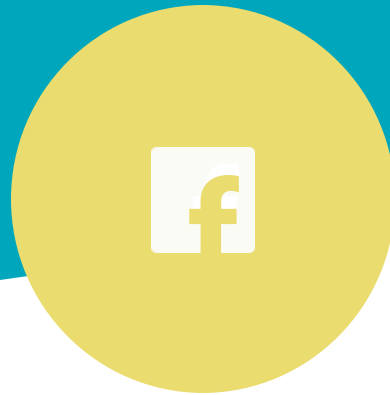




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# Diet & Nutrition:

## How to Eat Well with MS (and Actually Enjoy it!)

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