

#### **Emerging Wellness Research:** Key Takeaways & Ideas for You



#### DECEMBER PROGRAMS

WEBINAR – Jan 5 How to Eat Well with MS (And Actually Enjoy It!)

> JUMPSTART – Jan 13 Get Started With New Habits

YOUR QUESITONS 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

Multiple

Sclerosis

### How to Ask Questions During the Webinar

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



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## Learning Objectives

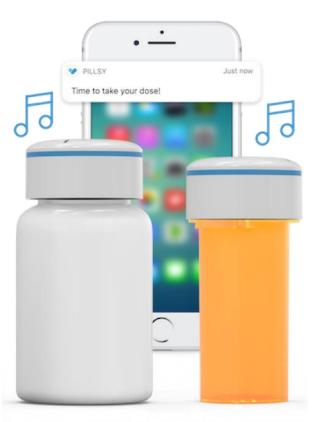
Participants and support partners will be able to:

- 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**

- Electronic Pill Bottle & Cap Non-invasive monitoring and helps improve adherence to oral DMTs
  - Pillsy<sup>™</sup> Smart Bottle and Pill Cap
- Light Therapy Safe, feasible, and welltolerated in people with MS associated fatigue





# **Tools and Gadgets**

• Augmented Cane – Self-navigating smart cane





https://www.sciencetimes.com/articles/33943/20211014/stanford-university-develops-white-cane-equipped-advanced-sensors-lidar-technology.htm

# **Tools and Gadgets**

• Walking Bike Without Pedals – The Alinker





# Pain and MS

- 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.
  - <u>https://www.nationalmssociety.org/Living</u> <u>-Well-With-MS/Diet-Exercise-Healthy-</u> <u>Behaviors/Diet-Nutrition/Dietary-Studies-</u> <u>in-MS</u>



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**

- 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**

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



## **PERSONAL GROWTH**

- 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*





#### 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







## **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

- 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, VO2) fitness, glucose and insulin sensitivity
- Minimal adverse reactions (pain)



## **HIIT to be FIT: Unanswered Questions**

- 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?



10	Max Effort Activity 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.
<b>4-6</b> <b>2-3</b>	Breathing heavily, can hold a short conversation. Still somewhat comfortable, but becoming

## **Tips to Starting HIIT with MS**



Talk with your healthcare provider(s)

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

RATE OF PERCEIVED EXERTION	
10	Max Effort Activity Feels almost impossible to keep going. Completely out of breath, unable to talk. Cannot maintain for more than a very short time.
9	Very Hard Activity Very difficult to maintain exercise intensity. Can barely breathe and speak only a few words.
7-8	Vigorous Activity Borderline uncomfortable. Short of breath, can speak a sentence.
4-6	Moderate Activity 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	Very Light Activity Hardly any exertion, but more than sleeping, watching TV, etc





**Remember:** 

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



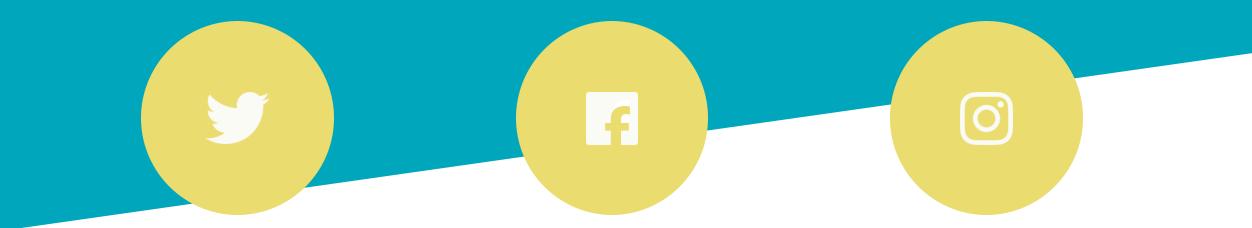








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#### **Diet & Nutrition:** How to Eat Well with MS (and Actually Enjoy it!)



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