

Annual Conference EMSP

Prevention in Multiple Sclerosis and Related Disorders:

Uncovering Risk and
Protective Factors

PRA
GUE | 16-17 MAY
2025



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Role of Lifestyle Changes in Preventing and Managing Comorbidities

Dr. Stephanie Woschek, DMSG



Agenda

- ✓ Lifestyle factors
- ✓ Common Comorbidities
- ✓ Effects of lifestyle factors in preventing comorbidities
- ✓ Lifestyle factors and comorbidities in people with MS – what do we know?
- ✓ Lifestyle factors in people with MS – evidence-based strategies
- ✓ Take home messages



Let's do a little warm-up

Slido Physical exercise: Three quick questions!

- 1) Who has already had at least one training session in May? (2 response options)
- 2) Who has already had at least one training session this week? (2 response options)
- 3) Who has already worked out today? (2 response options)

Let's do a little warm-up



A short workout for everyone:

→ Choose a standing or a sitting position!

→ Use your arms as good as possible!

→ Have fun 😊



Life style factors

Definition:

Modifiable habits and behaviors that can influence a person's health status

Such as:

- Dietary habits and nutrition,
- Physical activity and exercise patterns,
- Sleep quality and duration,
- Tobacco use and smoking,
- Alcohol consumption,
- Stress management practices,
- etc.



What is a comorbidity?

- Presence of two or more distinct medical conditions in the same person at the same time.
- Chronic or long-term in nature.
- Diseases or disorders that exist alongside a primary disease or
- Multiple health conditions that may interact with each other



Common comorbidities in general

- Hypertension (high blood pressure): often occurs with heart diseases, diabetes, influenced by age, lifestyle factors like diet, exercise and stress
- Type 2 diabetes: often appears with obesity, cardiovascular disease, lifestyle factors like diet and physical inactivity
- Cardiovascular diseases (including coronary artery disease and heart failure): often accours with hypertension, diabetes
- COPD: often appears with cardiovascular disease, metabolic syndrome, smoking
- Osteoarthritis: often appears with obesity, cardiovascular disease, depression, lifestyle factors like physical inactivity, obesity

Common comorbidities in people with MS

Comorbidities in pwMS compared to people without MS:

- Cardiovascular diseases
- Restless-Legs-Syndrome
- Fatigue
- Depression
- Anxiety
- Osteoporosis

Hauer et al. (2021). J Neurol



Lifestyle factors and
comorbidities in pwMS
– what do we know?



Lifestyle factors and comorbidities in people with MS – what do we know?

Nutrition

→ Too much sugar may lead to diabetes disease: additional damage in nerves and intestine (Saige et al 2018)

→ Obesity: risk for a higher EDSS and cognitive disabilities 1.4 higher with obesity (Wu et al., 2023 –ECTRIMS/ACTRIMS)



MSMilan2023

9th Joint ECTRIMS-ECTRIMS Meeting

11–13 October 2023 | Milan, Italy

ECTRIMS actrims

Abstract Number: 1452/O110

Obesity negatively affects disease progression, cognitive functioning, and quality of life in people with multiple sclerosis

Jing Wu ¹, Tomas Olsson ¹, Jan Hillert ¹, Lars Alfredsson * ¹, Anna Karin Hedström ¹,

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Introduction:

Obesity increases the risk of multiple sclerosis (MS), but studies investigating the potential influence of obesity on MS disease progression have been inconclusive.

Obesity in participants with MS was associated with faster disease progression, worse health-related quality of life, and faster worsening of cognitive disability

Lifestyle factors and comorbidities in people with MS – what do we know?

Smoking

→ Higher risk for developing MS (Olsson et al Nat Rev Neurol 2017)

→ Smoking is associated with increased blood-brain barrier disruption, lesion volumes and brain atrophy in MS (Zivadinov et al 2009)

→ Smoking is a nerve poison!



Lifestyle factors and comorbidities in people with MS – what do we know?

Physical inactivity

- People with MS show significantly less dynamic physical activity compared to healthy individuals throughout the day ($p < .001$). (Rietberg et al. 2014)
- Untrained people with MS show higher levels of inflammatory markers compared to trained individuals (Bellisario et al. 2024)
- Reasons for higher inactivity are certainly multifaceted (i.e. fatigue, motor disabilities, fear, uncertainty, no power, heat, and many more...)



Lifestyle factors in pwMS – evidence-based strategies



Lifestyle factors in people with MS – evidence-based strategies

Nutrition: No best diet for people with MS

- Prepare meals at home as much as possible.
- Incorporate colorful fresh fruits and vegetables daily.
- Choose lean proteins and healthy fats.
- If you eat grains, choose whole grains over refined grains.
- Consider adding herbs and spices to add flavor to meals.
- Avoid or limit processed foods and added sugars as much as possible.



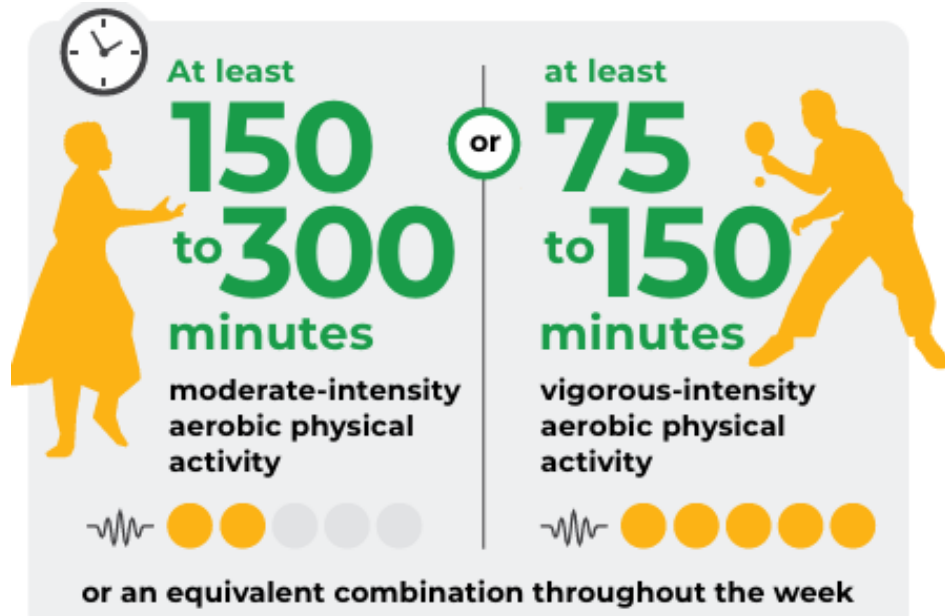
Lifestyle factors in people with MS – evidence-based strategies

Smoking: Quit!



Lifestyle factors in people with MS – evidence-based strategies

Physical exercise: Start now!



WHO (2020): Strong recommendation, moderate certainty evidence

Lifestyle factors in people with MS – evidence-based strategies

Physical exercise: Start now!

- Coordination training is part of every session! (Coordination skills: balance, orientation, rhythm, coupling, adaptation, reaction ability, differentiation)
- "Train in intervals – the shortest interval training session lasts only 4 minutes (*Tabata 8 x 20 s exercise and 10 s rest*)."
- Pushing your limits is allowed.
- Exceeding your limits may lead to restrictions in daily life—at least the next day.
- You don't have to feel your limits in every session: "Not every training is a competition!"

Lifestyle factors in people with MS – evidence-based strategies

Physical exercise: Start now!

- Short breaks are the key – take them individually and not only when nothing works anymore.
- MS symptoms or overexertion? The signs can be similar.
- Exercise with specific training goals: Specific, Measurable, Attractive, Realistic, Time-based (SMART)
- Exercise, training, therapy: Fun is essential! Only those who find additional personal motivation beyond health will stay active in the long run.

Take home messages

- ✓ Lifestyle factors have a huge impact in comorbidities in MS and disease progression!
- ✓ Focus on empowerment and knowledge in pwMS.
- ✓ Start with small training sessions.
- ✓ Small changes may have huge effects!
- ✓ Changes in lifestyle need knowledge, understanding, (social) support, patience, and time!
- ✓ Changes in lifestyle should not end up in stress.

„MS-PAT“ - The digital MS-specific patient education programme

Authors: Stephanie Woschek, Caroline Mehr, Michelle Freymann & Herbert Temmes

THE NEED FOR DIGITAL PATIENT EDUCATION

PATIENT DESIRE

PwMS want to positively influence the course of their MS disease not only with pharmacotherapy, but also through an active and healthy related lifestyle.

LEGAL BARRIERS

Until now, German health insurances limit patient education programmes to in-person formats.

ACCESSIBILITY

A comprehensive, location-independent offering has been lacking. New approaches have not been tried out, yet.

OUR SOLUTION:

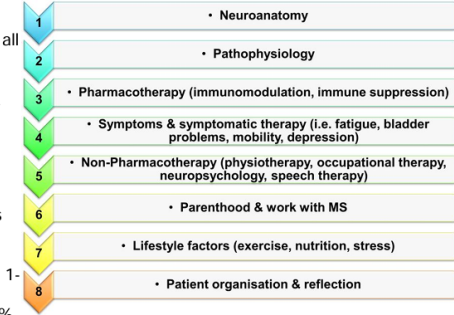
MS-PAT in a Blended-Learning-Concept - 8 units in Live-Online-Sessions & E-Learning

KEYPROGRAM ELEMENTS

- 15 participants per group
- Evidence-based information about all MS-relevant areas of life
- Peer support
- Interactive knowledge assessment
- Continuous evaluation
- Location-independent participation

RESEARCH FINDINGS

- 53 total participants in 4 courses
- 29 completed all evaluation & tests
- Average age: 47.5 ± 13.4
- Gender: m=6; f=23, d=0
- Disease duration: 4.6 ± 4.8 (range: 1-18 years)
- Knowledge test performance: 71.7%





It's not too late!
You still can join TheMay50K 😊



Link to:
<https://www.themay50k.com/>



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