

The Evidence behind the Overcoming MS Program



What is the Overcoming MS Program?

An evidence-based and rigorously researched diet and lifestyle modification approach developed by Professor George Jelinek, an award-winning doctor and professor of medicine.



Professor Jelinek is the founder of the Neuroepidemiology Unit (NEU) within the Melbourne School of Population and Global Health at The University of Melbourne.

Professor Jelinek developed the foundation for Overcoming MS Program in 1999, and has been refining and conducting research to support it ever since.

What follows is a brief, footnoted abstract of Professor Jelinek's and the NEU's research, as well as research conducted by others, that supports the conclusion that the Overcoming MS Program is an effective primary and secondary preventive approach to managing MS and achieving better health outcomes and quality of life.

Professor George Jelinek

Diagnosed with MS in 1999, Professor Jelinek has led the research into preventive and lifestyle-based approaches at the core of the Overcoming MS Program, which he follows rigorously, becoming symptom-free a few years after his original diagnosis. His many credentials and distinctions include:

- Australia's first Professor of Emergency Medicine.
- Past President of the Australasian Society for Emergency Medicine (ASEM) and past Vice President of the Australasian College for Emergency Medicine (ACEM).
- Founding Editor of the journal Emergency Medicine Australasia, a MEDLINE-indexed journal that he edited continuously for over 30 years.
- Past Chief Editor in Neuroepidemiology at leading MEDLINE-indexed neurology journal, Frontiers in Neurology.
- Recipient of the 2003 ACEM Medal, the highest individual honour in the specialty of Emergency Medicine in Australia and New Zealand.
- Winner of the 2006 John Gilroy Potts Award and the 2012 and 2014 Edward Brentnall Awards for the best publications in Emergency Medicine and Public Health, respectively.
- Western Australia Finalist for 2008 Australian of the Year, and Victoria Finalist for the 2016 Australian of the Year.
- Founder of the Neuroepidemiology Unit (NEU) within the Melbourne School of Population and Global Health at The University of Melbourne.



The Neuroepidemiology Unit (NEU) within the Melbourne School of Population and Global Health at The University of Melbourne



The Neuroepidemiology Unit (NEU) of the Melbourne School of Population and Global Health at the University of Melbourne was formed in 2015, building on the international profile in multiple sclerosis (MS) prevention of Professor George Jelinek.

The NEU has developed novel methods of accessing unique data from large communities of people with MS. It leads research into the potential for lifestyle-based preventive medicine approaches for MS. The NEU's research has led to over 60 publications in leading medical journals reporting outcomes related to lifestyle risk factors in MS.

The NEU conducts a number of studies related to primary and secondary prevention of MS. These include the HOLISM Study (Health Outcomes and Lifestyle In a Sample of people with MS) and the STOP-MS Study (Studying Outcomes Of People attending MS programs).



The NEU is a multidisciplinary team with medical doctors, neuroscientists, psychologists, epidemiologists and public health researchers.

The NEU has also designed and conducted a randomised controlled trial examining the effectiveness of a web-based educational course delivering evidence-based recommendations for lifestyle-related secondary and tertiary preventive measures. Randomised controlled trials of lifestyle interventions are rare within the medical literature and this represents a major development in MS research. Importantly qualitative studies of the experiences of people with MS who have undertaken the course have also been conducted.

The NEU is also collaborating with researchers in the UK from Oxford Brookes University, Swansea University and Imperial College London to investigate the influence of diet quality on health outcomes in people with MS utilising data from the UK MS Register.



The evidence - an overview



The evidence behind the Overcoming MS Program is broad-based, drawn from multiple different study methodologies and research groups, and incorporating over 1,000 pieces of research from journals ranked in the top 5-10,000 medical journals in the world.

Built on work conducted by pioneers such as Dr Roy Swank, an eminent neurologist from the University of Oregon, as well as the research of the NEU and other international researchers, the current available evidence offers a congruent and persuasive argument as to the efficacy of the Overcoming MS Program's core principles.

Research into lifestyle modification and the evidence base for its efficacy in MS is increasing rapidly, and aligns very closely to the original recommendations of the Overcoming MS Program.

The studies referred to here have all been published in high-impact, MEDLINE-indexed, peer-reviewed medical journals that cut across many different medical specialties, including neurology, endocrinology, immunology, biology, general medicine, epidemiology, genetics, public health, pharmacology and many others.

MS at its core

The preponderance of evidence to date, published in journals as varied as Lancet, Nature, and JAMA Neurology, points to MS being a disease that has a significant genetic basis for susceptibility, which comprises 25% of an individual's lifetime risk of developing MS, acting in combination with a variety of lifestyle factors.

Its progression, however, is largely determined by environmental factors, many of which are modifiable based on changes in lifestyle. This evidence stems from a range of genetic studies¹, including genome-wide association studies² and epidemiological studies, particularly around the contribution of latitude³, vitamin D⁴ and sun exposure⁵, diet⁶, smoking⁷, exercise⁸, and stress⁹.



Early MS research



The earliest research informing the risk factors associated with MS were major epidemiological studies undertaken in the middle of the 20th century, around the latitude gradient¹⁰ and regional differences in diet.¹¹

One of the pioneers of this early research was Dr Roy Swank, who looking at inland and coastal populations in Norway, observed that the incidence of MS was six times higher in the former, where the diet was primarily meat-based and therefore high in saturated fat, versus a low saturated fat diet in the coastal areas, where the diet was primarily seafood-based.

Dr Swank's initial epidemiological data from Norway prompted him to undertake the extraordinary Swank Study of 150 people with MS who were prescribed a low-saturated fat diet. Followed over 34 years,⁶ the subjects of this intervention study showed that those adhering to this diet remained largely fit and ambulant.

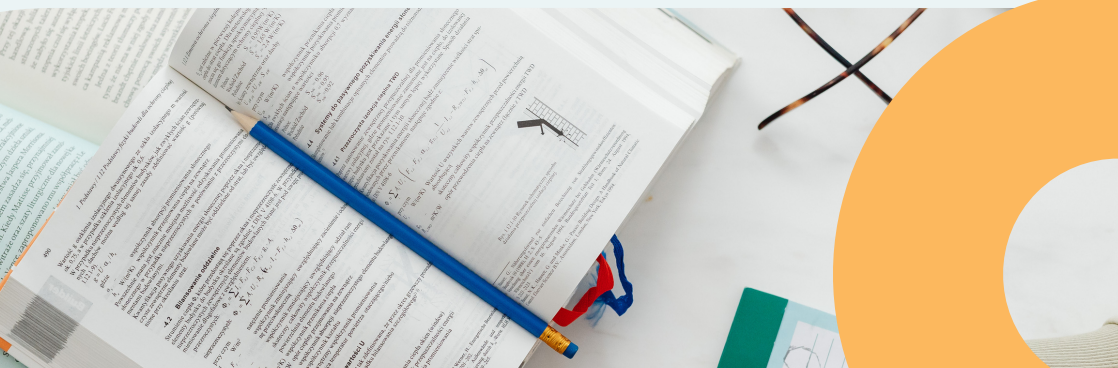
MS research today



Building on Dr Swank's work, researchers around the world showed that even within countries, there was a striking difference in MS incidence depending on latitude⁶, and proceeded to correlate this closely with ambient exposure to the UVB in sunlight¹². This led to recommendations about adequate sun exposure and the potential benefits of Vitamin D supplementation for people with MS.

The influence of exercise, smoking, stress, poor blood fat profile, and the presence of other illnesses has been studied in recent years, with supportive evidence of a role for each contributed by many different research groups.

There are now acknowledged benefits for exercise¹³, smoking cessation⁷, stress reduction and meditation¹⁴, improved lipid profile in blood and healthy body weight¹⁵, and having fewer other chronic conditions¹⁶. Adding to the current body of key MS research are two important studies conducted by Prof. Jelinek and his research team: STOP MS and HOLISM.



The journal Nutritional Neuroscience published a study comparing specific diets to determine which diet is best for MS. They found that the “Jelinek diet” or Overcoming MS Diet obtained the highest quality score of all MS specific diets (using the validated Dutch Healthy Diet Index). This was validated by findings of the HOLISM study.

You can find out more about the evidence here:
overcomingms.org/diet-verdict



Overcoming MS research: STOP MS

STOP MS is a study of over 400 people with MS who attended a 5-day Overcoming MS Program retreat to learn about lifestyle risk modification advocated by the Overcoming MS Program.

STOP MS follows up participants at the 1-, 3-, 5-, and 10-year marks. The research papers published from the study's findings at the 1- and 5- year follow-ups of the participants have shown that people who attended improved their lifestyle habits, maintained their use of disease-modifying medications, and achieved improvements in health-related quality of life that average around 12% at 1-year¹⁷ and 20% at 5 years.¹⁸



Overcoming MS research: HOLISM

The Health Outcomes and Lifestyle in a Sample of people with Multiple Sclerosis (HOLISM) study surveyed over 2,500 people from 57 countries, comprising a mix of people with MS living healthy lifestyles, and a large proportion who were not.

Strong associations were established between a range of lifestyle risk factors and quality of life,¹⁹ relapse rate and disability,²⁰ fatigue,²¹ depression,²² sexual function,²³ and pain. The risk factors studied were diet,²⁴ body mass index,²⁵ omega 3 fatty acid intake,²⁶ smoking and alcohol consumption,²⁷ exercise,²⁸ latitude and vitamin D intake,²⁹ meditation frequency,³⁰ and number of other illnesses.²⁵



Overcoming MS research: HOLISM

The researchers at the Neuroepidemiology Unit of the Melbourne School of Population and Global Health at the University of Melbourne showed people with lifestyles in line with the Overcoming MS Program had better health outcomes, including less disability, fewer relapses, better quality of life, and less incidence of depression and fatigue. Additionally, they confirmed the results seen in clinical trials that disability and relapse rates for people with MS are lower for those taking disease-modifying medications.³¹

HOLISM has generated over **40 research papers published in top peer-reviewed medical journals**, such as PLOS ONE, BMC Neurology, and BMC Psychiatry, making it one of the largest and most influential ongoing research studies in the international MS literature.



The dairy & gluten questions



Questions about dairy and gluten frequently arise in connection to their compatibility with the Overcoming MS Program and their overall effect on people with MS.

The answer is split. In the case of dairy, two separate studies from top-ranked international research institutes have shown a specific immune reactivity for people with MS to the protein in cow's milk. Separately, other studies have confirmed that in places where cow's milk consumption is high, incidence of MS is high, and vice versa. For these reasons, the Overcoming MS Program advocates that people with MS avoid dairy products.

In terms of gluten, the Overcoming MS research team has found no epidemiological data to support the assertion that gluten has an adverse effect on people with MS. Namely, the incidence of MS is no higher in populations whose diet consists of gluten-containing grains versus those who don't. Unlike saturated fats, the weight of evidence does not currently exist to support eliminating these foods, except of course in cases where gluten sensitivity may be an issue in its own right.

Our Conclusions

There is growing consensus among experts in MS research and management that developing MS, and more particularly, its course towards disability and poor quality of life, are strongly influenced by a range of environmental factors, many of them lifestyle factors within our control. The literature is broad-based and congruent, with little contradictory data published.

Some argue that, as there are few randomized controlled trials of lifestyle interventions in MS, there is no evidence on which to base such a programme. This is a fundamental misinterpretation of evidence-based medicine (EBM). As Dr David Sackett, the architect of EBM, stated: "Evidence based medicine is not restricted to randomized trials and meta-analyses. It involves tracking down the best external evidence with which to answer our clinical questions."³² So, some researchers and academics await clinical trials, representing the highest level of evidence, before adopting this approach.





But the difficulties of conducting such trials have been acknowledged,³³ particularly in the case of lifestyle interventions. Clinicians and people with MS can be confident that the best available evidence to date strongly supports modification of these lifestyle risk factors as advocated by the Overcoming MS Program, in addition to standard care. This is true for both primary prevention (preventing MS in close relatives of people with MS) and secondary prevention (modifying or stabilizing the course of the disease for those with MS). There are no risks associated with this approach, only better health, both generally and specifically relating to MS.

Overcoming MS



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out more, subscribe to
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Footnotes

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