

**CLINICAL TRIALS FUNDED BY THE NATIONAL MS SOCIETY**

Updated August 2018

**Abbreviations Key:**

CIS - a first episode of neurologic symptoms

COMP/ALT – interventions considered to be outside the realm of conventional medicine

MED – medical therapy, including medications and medical procedures

PP – primary progressive MS

REHAB – rehabilitation intervention

RR - relapsing-remitting MS

SP - secondary progressive MS

Progressive - any type of progressive MS such as primary progressive, secondary progressive or progressive relapsing

<b>Agent</b>	<b>TYPE OF INTER-VENTION</b>	<b>RE-SEARCH STRATEGY</b>	<b>PURPOSE OF STUDY</b>	<b>LEAD INVESTIGATOR</b>	<b>LEAD UNIVERSITY OR COMPANY</b>	<b>TYPE OF MS/NUMBER OF SUBJECTS</b>	<b>STATUS/RESULTS</b>
<b>Acceptance and commitment therapy</b>	REHAB	Restore	improve coping	Ivan Molton	University of Washington, Seattle	All types/50	Completed (results not reported yet).
<b>Acupuncture</b>	COMP/ALT	Restore	improve symptoms	Herbert Karpatkin	Hunter College, New York, NY	All types/30	Recruiting; read more, <a href="https://clinicaltrials.gov/ct2/show/NCT03174379">https://clinicaltrials.gov/ct2/show/NCT03174379</a>
<b>Acute intermittent hypoxia</b>	REHAB	Restore	improve motor function	Sherri LaVela	Chicago Association for Research and Education in Science, Chicago, IL	All types/10	Ongoing, no further information available.
<b>Aerobic exercise</b>	REHAB	Restore	improve cognitive function	Charles Bombardier	University of Washington, Seattle	All types/125	Recruiting; read more: <a href="http://clinicaltrials.gov/show/NCT02106052">http://clinicaltrials.gov/show/NCT02106052</a>
<b>Anticipatory postural control</b>	REHAB	Restore	improve balance	Alexander Aruin	University of Illinois at Chicago	RR/20	Ongoing, no further information available.
<b>Atomoxetine</b>	MED	Restore	improve memory	James Sumowski	Icahn School of Medicine at Mount Sinai, New York, NY	All types/15	Completed (results not reported yet).

Agent	TYPE OF INTER-VENTION	RE-SEARCH STRATEGY	PURPOSE OF STUDY	LEAD INVESTIGATOR	LEAD UNIVERSITY OR COMPANY	TYPE OF MS/NUMBER OF SUBJECTS	STATUS/RESULTS
<b>Balance and eye movement exercises</b>	REHAB	Restore	improve stability and reduce fatigue	Jeffrey Hebert	University of Colorado, Denver	All types/88	Completed; improved balance, fatigue, cognition, dizziness and quality of life; read more <a href="https://www.nationalmssociety.org/About-the-Society/News/Researchers-Funded-by-National-MS-Society-Show-Bal">https://www.nationalmssociety.org/About-the-Society/News/Researchers-Funded-by-National-MS-Society-Show-Bal</a>
<b>Behavioral pain intervention</b>	REHAB	Restore	reduce pain catastrophizing	Kevin Alschuler	University of Washington, Seattle	All types/40	Completed (results not reported yet).
<b>Bile acid supplementation</b>	COMP/ALT	Stop	reduce disease activity	Pavan Bhargava	Johns Hopkins University School of Medicine, Baltimore, MD	SP, PP/60	Recruiting; read more, <a href="https://clinicaltrials.gov/ct2/show/NCT03423121">https://clinicaltrials.gov/ct2/show/NCT03423121</a>
<b>Cognitive therapy</b>	REHAB	Restore	reduce pain	Dawn Ehde	University of Washington, Seattle	All types/240	Ongoing, no further information available.
<b>Cognitive therapy</b>	REHAB	Restore	improve sleep quality and reduce fatigue	Catherine Siengsukon	University of Kansas Medical Center, Kansas City, KS	All types/60	Recruiting; read more, <a href="https://clinicaltrials.gov/ct2/show/NCT03216889">https://clinicaltrials.gov/ct2/show/NCT03216889</a>
<b>Compensatory step training</b>	REHAB	Restore	prevent falling	K. Bo Foreman	University of Utah, Salt Lake City	RR/10	Completed; subtle improvements reported; read more, p. 172, <a href="https://silkstart.s3.amazonaws.com/59415e0f68621305b714ddfc.pdf">https://silkstart.s3.amazonaws.com/59415e0f68621305b714ddfc.pdf</a>
<b>Dalfampridine and physical therapy</b>	MED/REHAB	Restore	improve gait problems	Prudence Plummer	University of North Carolina, Chapel Hill	All types/10	Completed; improved gait speed; read more <a href="http://ijmsc.org/doi/pdf/10.7224/1537-2073.2017-074">http://ijmsc.org/doi/pdf/10.7224/1537-2073.2017-074</a>
<b>Dance intervention, ballet</b>	REHAB	Restore	improve balance, agility, and smoothness of movement during walking	Citlali Lopez-Ortiz	University of Illinois at Urbana-Champaign	All types/14	Completed; significant improvements in all measures; read more <a href="https://link.springer.com/chapter/10.1007/978-3-319-46669-9_174">https://link.springer.com/chapter/10.1007/978-3-319-46669-9_174</a>
<b>Deprexis (internet-based cognitive behavioral therapy)</b>	REHAB	Restore	reduce depression	Stefan Gold	Charite University, Berlin, Germany	All types/400	Recruiting; read more <a href="https://clinicaltrials.gov/ct2/show/NCT02740361">https://clinicaltrials.gov/ct2/show/NCT02740361</a>

Agent	TYPE OF INTER-VENTION	RE-SEARCH STRATE GY	PURPOSE OF STUDY	LEAD INVESTI-GATOR	LEAD UNIVERSITYOR COMPANY	TYPE OF MS/NUMBER OF SUBJECTS	STATUS/RESULTS
Diet	COMP/ALT	Restore	improve health and wellness	Ilana Katz Sand	Icahn School of Medicine at Mount Sinai, New York, NY	All types/30	Ongoing, not recruiting; read more <a href="https://clinicaltrials.gov/ct2/show/NCT02986893">https://clinicaltrials.gov/ct2/show/NCT02986893</a>
Diet	COMP/ALT	Restore	reduce fatigue	Terry Wahls	University of Iowa, Iowa City	RR/100	Recruiting; read more <a href="https://clinicaltrials.gov/ct2/show/NCT02914964">https://clinicaltrials.gov/ct2/show/NCT02914964</a>
Diet (intermittent calorie restriction)	COMP/ALT	Stop	examine effects on weight and patient reported outcomes	Ellen Mowry	Johns Hopkins University School of Medicine, Baltimore, MD	All types/36	Completed; no significant adverse events and significant improvements in emotional well-being/depression scores; read more, <a href="https://www.ncbi.nlm.nih.gov/pubmed/29753994">https://www.ncbi.nlm.nih.gov/pubmed/29753994</a>
Diet (intermittent calorie restriction)	COMP/ALT	Stop	determine effects of diet on leptin and adipnectic levels, immune system activity, and composition of gut bacteria	Laura Piccio	Washington University School of Medicine, St. Louis	Relapsing/60	Recruiting; read more <a href="https://www.clinicaltrials.gov/ct2/show/NCT03539094">https://www.clinicaltrials.gov/ct2/show/NCT03539094</a>
Dietary intervention delivered through web-based platform	COMP/ALT	Restore	examine feasibility and improve symptoms	Brooks Wingo	University of Alabama at Birmingham	RR/20	Recruiting; read more, <a href="https://clinicaltrials.gov/ct2/show/NCT03372187">https://clinicaltrials.gov/ct2/show/NCT03372187</a>
Disease-modifying therapies	MED	Stop	determine best practices for dis-continuing therapy	John Corboy	University of Colorado, Denver	Relapsing/300	Mainly funded by PCORI with additional funding from the National MS Society. Recruiting; read more, <a href="https://clinicaltrials.gov/ct2/show/NCT03073603">https://clinicaltrials.gov/ct2/show/NCT03073603</a>
Dual task training	REHAB	Restore	improve walking	Jacob Sosnoff	University of Illinois at Urbana-Champaign	All types/20	Completed; trend to improvement in walking no change in cognitive function; read more, <a href="https://www.ncbi.nlm.nih.gov/pubmed/28933609">https://www.ncbi.nlm.nih.gov/pubmed/28933609</a>

Agent	TYPE OF INTERVENTION	RE-SEARCH STRATEGY	PURPOSE OF STUDY	LEAD INVESTIGATOR	LEAD UNIVERSITY OR COMPANY	TYPE OF MS/NUMBER OF SUBJECTS	STATUS/RESULTS
<b>Emotional processing intervention</b>	REHAB	Restore	improve emotional function	Helen Genova	Kessler Foundation Research Center, West Orange, NJ	RR/50	Recruiting; read more <a href="https://clinicaltrials.gov/ct2/show/NCT03373344">https://clinicaltrials.gov/ct2/show/NCT03373344</a>
<b>E-support (online support group)</b>	REHAB	Restore	improve psychosocial symptoms	Victoria Leavitt	Columbia University, New York, NY	All types/36	Recruiting; read more <a href="https://www.clinicaltrials.gov/ct2/show/NCT03574961">https://www.clinicaltrials.gov/ct2/show/NCT03574961</a>
<b>Exercise</b>	REHAB	Restore	improve brain health	Audrey Hicks	McMaster University, Hamilton, Ontario, Canada	All types/30	Ongoing, no further information available.
<b>Exoskeleton</b>	REHAB	Restore	improve walking	Shuo-Hsiu Chang	The University of Texas Health Science Center, Houston	All types/10	Ongoing, no further information available.
<b>Exoskeleton</b>	REHAB	Restore	improve walking	Allan Kozlowski	Icahn School of Medicine at Mount Sinai, New York, NY	All types/12	Completed; safe and feasible, participants who walked routinely improved; read more <a href="https://www.ncbi.nlm.nih.gov/pubmed/28315666">https://www.ncbi.nlm.nih.gov/pubmed/28315666</a>
<b>Fall prevention program</b>	REHAB	Restore	prevent falling	Laura Rice	University of Illinois at Urbana-Champaign	Non-ambulatory/120	Ongoing, no further information available.
<b>Feedback presentation</b>	REHAB	Restore	reduce fatigue	Ekaterina Dobryakova	Kessler Foundation Research Center, West Orange, NJ	All types/35	Completed; decreased fatigue; read more, <a href="https://www.ncbi.nlm.nih.gov/pubmed/28627957">https://www.ncbi.nlm.nih.gov/pubmed/28627957</a>
<b>Functional electrical stimulation cycling</b>	REHAB	Restore	reduce vascular conditions	Emerson Sebastião	University of Illinois at Urbana-Champaign	All types/60	Completed; results suggest that active cycling with FES can elicit a sufficient stimulus for improving cardiorespiratory fitness; read more, <a href="https://www.ncbi.nlm.nih.gov/pubmed/28881147">https://www.ncbi.nlm.nih.gov/pubmed/28881147</a>
<b>Functional electrical stimulation cycling with website and chat sessions</b>	REHAB	Restore	improve fitness and reduce vascular disease	Lara Pilutti	University of Ottawa, Ontario, CA	All types/60	Ongoing, no further information available.

Agent	TYPE OF INTER-VENTION	RE-SEARCH STRATE-GY	PURPOSE OF STUDY	LEAD INVESTI-GATOR	LEAD UNIVERSITYOR COMPANY	TYPE OF MS/NUMBER OF SUBJECTS	STATUS/RESULTS
<b>Gait training</b>	REHAB	Restore	improve walking	Peter Altenburger	Indiana University, Indianapolis	SP, PP/20	Ongoing, no further information available.
<b>Gaze and postural stability training</b>	REHAB	Restore	improve balance and vision stability	Lee Dibble	University of Utah, Salt Lake City	All types/50	Recruiting; read more, <a href="https://clinicaltrials.gov/ct2/show/NCT03521557">https://clinicaltrials.gov/ct2/show/NCT03521557</a>
<b>Glucose regulation</b>	MED	Stop	decrease relapse severity or improve recovery from relapse	Myla Goldman	University of Virginia, Charlottesville	CIS, RR/160	Recruiting; read more <a href="https://clinicaltrials.gov/ct2/show/NCT03004079">https://clinicaltrials.gov/ct2/show/NCT03004079</a>
<b>Ibudilast</b>	MED	Stop	protect nervous system and stop progression	Robert Fox	Cleveland Clinic Foundation, OH	SP, PP/250	Funded with the National Institutes of Neurological Disorders and Stroke, with added support by MediciNova, the supplier of ibudilast. Completed; well tolerated and significantly slowed the rate of brain atrophy compared to placebo; read more <a href="https://www.nationalmssociety.org/About-the-Society/News/Results-Announced-from-Phase-2-Clinical-Trial-of-I">https://www.nationalmssociety.org/About-the-Society/News/Results-Announced-from-Phase-2-Clinical-Trial-of-I</a>
<b>Inspiratory muscle training</b>	REHAB	Restore	reduce breathing problems	Min-Hui Hang	Regents of the University of Michigan, Flint, MI	All types/40	Recruiting; read more, <a href="https://clinicaltrials.gov/ct2/show/NCT03345199">https://clinicaltrials.gov/ct2/show/NCT03345199</a>
<b>Internet-based program to increase physical activity</b>	REHAB	Restore	improve physical activity, walking ability, quality of life, and reduce fatigue, depression, pain	Robert Motl	University of Alabama at Birmingham	RR/280	Recruiting; read more <a href="https://www.clinicaltrials.gov/ct2/show/NCT03490240">https://www.clinicaltrials.gov/ct2/show/NCT03490240</a>
<b>Ketamine</b>	MED	Restore	reduce fatigue	Bardia Nourbakhsh	Johns Hopkins University School of Medicine, Baltimore, MD	All types/18	Not yet recruiting; read more, <a href="https://www.clinicaltrials.gov/ct2/show/NCT03500289">https://www.clinicaltrials.gov/ct2/show/NCT03500289</a>

Agent	TYPE OF INTER-VENTION	RE-SEARCH STRATEGY	PURPOSE OF STUDY	LEAD INVESTIGATOR	LEAD UNIVERSITY OR COMPANY	TYPE OF MS/NUMBER OF SUBJECTS	STATUS/RESULTS
<b>Light therapy</b>	REHAB	Restore	reduce fatigue	Farrah Mateen	Massachusetts General Hospital, Boston	RR/80	Recruiting; read more <a href="https://clinicaltrials.gov/ct2/show/NCT03060759">https://clinicaltrials.gov/ct2/show/NCT03060759</a>
<b>Light therapy</b>	REHAB	Restore	reduce muscle fatigue	Jeri-Anne Lyons	University of Wisconsin-Milwaukee, Milwaukee, WI	RR/30	Ongoing, no further information available.
<b>Lipoic acid</b>	COMP/ALT	Restore	prevent progression	Rebecca Spain	Oregon Health & Science University, Portland	SP, PP/118	Recruiting; read more, <a href="https://clinicaltrials.gov/ct2/show/NCT03161028">https://clinicaltrials.gov/ct2/show/NCT03161028</a>
<b>Lipoic Acid and Omega-3 Fatty Acids</b>	COMP/ALT	Restore	improve cognitive function	Lynne Shinto	Oregon Health & Science University, Portland	RR, SP/53	Completed; no significant difference between treatment and placebo; read more, <a href="https://clinicaltrials.gov/ct2/show/results/NCT02133664">https://clinicaltrials.gov/ct2/show/results/NCT02133664</a>
<b>Liothyronine</b>	MED	Restore	test safety and effects on symptoms and nerve cells	Scott Newsome	Johns Hopkins University School of Medicine, Baltimore, MD	All types/20	Completed (results not reported yet).
<b>Lung volume recruitment</b>	REHAB	Restore	improve respiratory function	Nadim Srour	University of Ottawa, Ontario, CA	All types/35	Completed (results not reported yet).
<b>Manualized cognitive rehabilitation program</b>	REHAB	Restore	improve memory and the ability to perform activities	Michael Basso	University of Tulsa, OK	All types/20	Ongoing, no further information available.
<b>Meditation</b>	COMP/ALT	Restore	improve emotional function	Ruchika Prakash	Ohio State University, Columbus	RR/24	Completed (results not reported yet).
<b>Methylphenidate</b>	MED	Restore	reduce cognitive fatigue	John DeLuca	Kessler Foundation Research Center, West Orange, NJ	All types/36	Ongoing, no further information available.

Agent	TYPE OF INTER-VENTION	RE-SEARCH STRATEGY	PURPOSE OF STUDY	LEAD INVESTIGATOR	LEAD UNIVERSITY OR COMPANY	TYPE OF MS/NUMBER OF SUBJECTS	STATUS/RESULTS
<b>MS SMART (three therapies with nerve-protecting potential: fluoxetine, Amiloride, and Riluzole)</b>	MED	Stop	slow or stop MS progression	MS Clinical Trials Network established by the MS Society in the United Kingdom	University College and others, London, UK	SP/440	Funded with the U.K. MS Society. Ongoing, not recruiting; read more <a href="http://clinicaltrials.gov/show/NCT01910259">http://clinicaltrials.gov/show/NCT01910259</a>
<b>Multi-modal exercise program</b>	REHAB	Restore	reduce progression of mobility disability	Robert Motl	University of Alabama at Birmingham	All types/83	Completed; significant improvements in endurance walking performance and cognitive processing speed; read more, <a href="https://www.ncbi.nlm.nih.gov/pubmed/28732757">https://www.ncbi.nlm.nih.gov/pubmed/28732757</a>
<b>Positive airway pressure therapy</b>	REHAB	Restore	improve cognitive function in people with sleep apnea	Tiffany Braley	University of Michigan, Ann Arbor	All types/175	Recruiting; read more <a href="https://clinicaltrials.gov/ct2/show/NCT02544373">https://clinicaltrials.gov/ct2/show/NCT02544373</a>
<b>Rituximab</b>	MED	Stop	evaluate safety and effects on markers of inflammation	Peter Calabresi	Johns Hopkins University School of Medicine, Baltimore, MD	SP, PP/12	Funded jointly with other International Progressive MS Alliance members. Completed; no serious adverse events, but did not reduce meningeal B cell clusters seen on MRI; read more, <a href="https://actrims.confex.com/actrims/2018/meetingapp.cgi/Paper/2548">https://actrims.confex.com/actrims/2018/meetingapp.cgi/Paper/2548</a>
<b>Rituximab with cerebral microdialysis</b>	MED	Stop	test safety and study immune messenger chemicals inside the brain	Anders Svenningsson	Umeå University, Sweden	SP, PP/20	Funded jointly with other International Progressive MS Alliance members. Completed; depletes peripheral blood B lymphocytes; read more, <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4345631/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4345631/</a>
<b>Simvastatin</b>	MED	Stop	test ability to protect nervous system	Jeremy Chataway	University College and others, London, UK	SP/1180	Funded jointly with National Institute for Health Research (U.K.) and MS Society (U.K.). Not yet recruiting; read more <a href="https://clinicaltrials.gov/ct2/show/NCT03387670">https://clinicaltrials.gov/ct2/show/NCT03387670</a>

Agent	TYPE OF INTER-VENTION	RE-SEARCH STRATE-GY	PURPOSE OF STUDY	LEAD INVESTI-GATOR	LEAD UNIVERSITYOR COMPANY	TYPE OF MS/NUMBER OF SUBJECTS	STATUS/RESULTS
<b>Speech recognition technology</b>	REHAB	Restore	improve communication-related quality of life	Caila Vaughn	The State University of New York at Buffalo, Buffalo, NY	All types, with dysarthria/20	Ongoing, no further information available.
<b>Speed of processing training</b>	REHAB	Restore	improve cognitive function	Nancy Chiaravalloti	Kessler Foundation Research Center, West Orange, NJ	All types/100	Recruiting; read more, <a href="https://clinicaltrials.gov/ct2/show/NCT02301260">https://clinicaltrials.gov/ct2/show/NCT02301260</a>
<b>Speed of processing training</b>	REHAB	Restore	improve cognitive function	Bonnie Glanz	Brigham and Women's Hospital, Boston, MA	All types/30	Completed (results not reported yet).
<b>Step tracking versus water intake-tracking</b>	REHAB	Restore	improve cognitive function	Ruchika Prakash	Ohio State University, Columbus	RR/200	Recruiting; read more, <a href="https://clinicaltrials.gov/ct2/show/NCT03244696">https://clinicaltrials.gov/ct2/show/NCT03244696</a>
<b>Telehealth self-management Intervention</b>	REHAB	Restore	reduce fatigue and increase physical activity	Matthew Plow	Cleveland Clinic Foundation, OH	All types/215	Ongoing, not recruiting; read more, <a href="https://www.nationalmssociety.org/About-the-Society/News/MS-Trial-Alert-People-with-MS-in-Seven-States-Bein">https://www.nationalmssociety.org/About-the-Society/News/MS-Trial-Alert-People-with-MS-in-Seven-States-Bein</a>
<b>Telephone-delivered physical activity intervention</b>	REHAB	Restore	improve fatigue	Nora Fritz	Wayne State University, Detroit, MI	RR/20	Ongoing, no further information available.
<b>Tissue selective estrogen complex</b>	MED	Stop	improve menopause and MS symptoms	Riley Bove	University of California, San Francisco	All types, menopausal women/24	Recruiting; read more <a href="https://clinicaltrials.gov/ct2/show/NCT02710214">https://clinicaltrials.gov/ct2/show/NCT02710214</a>
<b>Transcranial Direct Current Stimulation</b>	REHAB	Restore	improve cognition, fatigue	Leigh Charvet	New York University	All types/60	Recruiting; read more <a href="https://clinicaltrials.gov/ct2/show/NCT02746705">https://clinicaltrials.gov/ct2/show/NCT02746705</a>
<b>Transcranial Direct Current Stimulation</b>	REHAB	Restore	improve walking	Thorsten Rudroff	Colorado State University, Fort Collins, CO	All types/30	Ongoing, no further information available.



Agent	TYPE OF INTER-VENTION	RE-SEARCH STRATEGY	PURPOSE OF STUDY	LEAD INVESTIGATOR	LEAD UNIVERSITY OR COMPANY	TYPE OF MS/NUMBER OF SUBJECTS	STATUS/RESULTS
<b>Virtual reality-treadmill intervention</b>	REHAB	Restore	improve mobility and cognitive function	Jeffrey Hausdorff	Tel Aviv Sourasky Medical Center, Tel Aviv, Israel	RR/144	Ongoing, no further information available.
<b>Vitamin D</b>	REHAB	Restore	prevent development of MS	Hamish Campbell	MS Research Australia	CIS/240	Largely funded by MS Research Australia; Ongoing, read more, <a href="https://msra.org.au/vitamin-d-ms-prevention-trial-prevanz/">https://msra.org.au/vitamin-d-ms-prevention-trial-prevanz/</a>
<b>Vitamin D + glatiramer acetate (Copaxone®, Teva Pharmaceutical Industries, Ltd.)</b>	MED	Stop	test safety and effectiveness in reducing disease activity	Ellen M. Mowry	Johns Hopkins University School of Medicine, Baltimore, MD	RR/172	Recruiting; read more <a href="http://clinicaltrials.gov/ct2/show/NCT01490502">http://clinicaltrials.gov/ct2/show/NCT01490502</a>
<b>Working memory training</b>	REHAB	Restore	improve memory	Janet Shucard	State University of New York, Buffalo	RR/90	Ongoing, no further information available.