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MS® PROGRESS Report

Strong link between vitamin D and MS risk

The Multiple Sclerosis Society of Canada has developed and released important vitamin D recommendations for people living with MS and those at risk of developing MS.

Because some studies suggest that getting enough vitamin D every day can decrease the chances of developing MS, vitamin D has long been a topic of interest to the Canadian MS community.

The purpose of these comprehensive recommendations is to help people living with MS make informed decisions about their health, as well as provide the suggested daily intake of vitamin D for various populations affected by MS. The recommendations also outline helpful tips on how to increase vitamin D levels in a healthy and safe way.

Why is vitamin D so important?

Vitamin D is an essential nutrient to the human body. In addition to maintaining strong bones, vitamin D may have a role in the body's immune system, heart and brain health, and how sugars are broken down in the body.

For people at risk of developing MS (individuals with a sibling, parent, or child with MS), getting enough vitamin D every day can help decrease their chances of developing MS. For individuals living with MS, keeping vitamin D levels within the optimal range may also prevent their MS from getting worse.

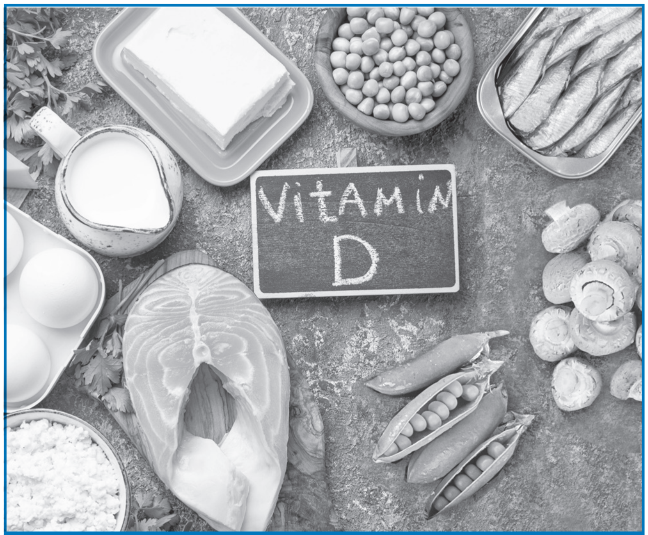
However, vitamin D alone is not an effective treatment for MS, and too much vitamin D can be harmful. It's important to ensure that daily intake does not exceed the maximum recommendations for your age group.

Talk to your doctor!

Everyone's needs are different, and blood tests are the only way to be sure your vitamin D levels are right for you. People with certain medical conditions like kidney disease, parathyroid disease, and endocrine malignancies should consult their doctor before taking any vitamin D supplements.

If you have MS or are at risk of developing MS, talk to your doctor about how to be sure you're meeting the recommended vitamin D intake level and consider adding routine blood tests to your healthcare plan.

To learn more about these recommendations, visit mssociety.ca/hot-topics/vitamin-d.



Where can you get vitamin D?

Safe exposure to sunlight is the easiest way to boost vitamin D levels. So during the summer months, consider spending your lunch hour walking or reading outside. Sunscreens with SPF below 30 will still allow the skin to produce vitamin D.

Eat foods rich in vitamin D, like oily fish (salmon, trout, sardines), vitamin D-fortified dairy products, egg yolks, and cheeses.

Supplements are especially helpful for those who may not get enough sunlight (a common challenge for Canadians, especially in the winter) and can be taken at any time of the day within the recommended daily doses.

Commit an Act of Greatness.
Make a gift today.

MS research is an act of greatness — and so is each and every donation that makes it possible. The MS Society of Canada has a bold vision: to raise $75 million through our Acts of Greatness campaign. We plan to define what's next in treating MS, and we won't rest until we end it. Your gift today could make a life-changing difference tomorrow. **Make your gift now at actsofgreatness.ca.**

A MESSAGE FROM THE PRESIDENT

Dr. Pamela Valentine

As we welcome another spring, it is my great honour to thank you and reiterate how vital your support is — to the advancement of research, and to the multiple sclerosis community.

To a fellow Canadian, I'm sure I don't have to explain what a powerful word 'community' is. One of the things we're proudest of is the way we look after each other — because we're all connected. We feel this shared connection in countless ways, large and small. Sometimes small things mean the most — an idea that's highlighted in our new "Acts of Greatness" media campaign, which you may have seen recently.

But while we celebrate even the smallest victories, we must also continue to embrace big challenges in order to understand and defeat this unpredictable disease. As you'll read inside, the CANadian PROactive COhort Study for People Living with MS (CanProCo), led by Dr. Jiwon Oh of the University of Toronto, is the first large-scale, long-term Canadian study to examine MS progression over time.

For the tens of thousands of Canadians — and millions of people around the world — who live with multiple sclerosis, studies of this caliber represent their best hope for living the lives they want and deserve. And you make life-changing research like this possible.

I hope that you will lend your support this year and help us achieve our vision of a world free of MS. Thank you in advance for your loyalty and commitment.

Sincerely,

Pamela Valentine

Dr. Pamela Valentine
President and Chief Executive Officer
Multiple Sclerosis Society of Canada

MS in the NEWS

Scientists come together to assess the challenges of progressive MS

At the 3rd Scientific Congress of the Progressive MS Alliance, held in Toronto, more than 220 participants from over 16 countries gathered to discuss the challenges of progressive MS. The largest Congress to date, researchers provided insights from their own research on symptom management and rehabilitation — and set the stage for establishing collaborative relationships and shared ideas that will have the greatest impact on progressive MS.

MS Society announces $5 million support for progressive MS clinical trial

This fall, the MS Society announced a $5 million investment in a clinical trial, led by Dr. Anthony Feinstein, to improve cognition in people with progressive MS. The groundbreaking trial will enroll 360 people from across six countries, making it the first international study of its kind. Researchers will investigate a combined approach of cognitive rehabilitation and aerobic exercise in the hope that the two therapies together will be more beneficial in improving cognitive function than each is alone.

Cognitive difficulties can impact employment, relationships and everyday activities. For the 70% of people with progressive MS that experience cognitive difficulties, this trial could lead to more effective therapy options.

MS researchers share progress at European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS) conference

At the ECTRIMS conference in Germany, participants from all over the world gathered to share the latest information on MS research, share important data and announce new breakthroughs in treatment. Researchers, clinicians and trainees took in presentations and small group workshops, and had the opportunity to share thoughts and ideas between disciplines. The topics included pediatric MS, immunology, neurodegeneration, and more.

RESEARCH SPOTLIGHT:

Jiwon Oh, MD, PhD, FRCPC

> *"The goal of this study is to improve the lives of people living with MS..."*
>
> *— Dr. Oh*

Dr. Jiwon Oh, an MS-Society funded neurologist and researcher, has recently been elected to lead the CANadian PROactive COhort Study for People Living with MS (CanProCo). This pan-Canadian study aims to observe 1,000 people over the span of several years — potentially decades — in an effort to answer the critical question of why some people with MS experience steady progression of the disease, while others do not.

After winning the MS Society of Canada's endMS Transitional Career Development Award, Dr. Oh is now an Assistant Professor of Medicine in the Division of Neurology at the University of Toronto and a staff neurologist at St. Michael's Hospital, where she leads the MRI research program and a number of multi-centre MRI studies.

Dr. Oh explains that the CanProCo study is an important first, because it focuses specifically on understanding progression in MS. "It is truly the greatest unmet clinical need. Better understanding … will make a huge difference in being able to develop better treatment strategies for our patients, and to hopefully develop medications that will be able to slow or halt progression."

At five sites across Canada, experts in the fields of epidemiology, health outcomes research, neuroimaging, and neuroimmunology (all of which play a critical role in MS research) will convene to make this multi-year study a success. The study will then move forward in stages, beginning with standardizing data collection and setting policies and procedures before moving on to patient recruitment.

Dr. Oh concludes, "Please extend my gratitude to the many donors who are making this work possible. I look forward to sharing our progress with you."

Funding research with life-changing impact

BMT trial reverses symptoms in participant

"My story is very much like everyone else," says Brooke Robinson. "I spent my childhood playing competitive sports and graduated with an honours degree in History. Then I was diagnosed with MS and I had to change my path in life."

Diagnosed with multiple sclerosis at the age of 26, Brooke's condition was rapidly progressing. After just six months, she needed the assistance of a cane to walk.

"I had no options left," says Brooke.

Thousands of Canadians like Brooke face the unpredictable and challenging symptoms of MS, with few therapies to slow down rapid progression. But research and clinical trials continue to make incredible progress.

One of these trials, called the Bone Marrow Transplantation (BMT) trial, has shown promising results for individuals experiencing aggressive forms of relapsing-remitting MS. The treatment begins with chemotherapy, which completely wipes out a patient's immune system. Then, the immune system is rebuilt using the patient's own healthy stem cells that were extracted before chemotherapy.

Brooke first heard about BMT by chance, after meeting someone with MS who had sought out the treatment for himself.

"I chased down the lead research, Dr. Mark Freedman," says Brooke.

Dr. Freedman confirmed that Brooke was eligible as a candidate for the trial. And a year and a half after her initial diagnosis, Brooke began BMT.

Today, a year after completing treatment, Brooke can walk without her cane. Her symptoms are improving every day, and she's even started her own business, Brooke Robinson Solutions (www.brookerobinson.ca).

"The other day I carried in all six bags of my groceries by myself," Brooke says. "Three years ago, that wouldn't have been possible."

With help from dedicated people like you, The Multiple Sclerosis Society of Canada has funded the BMT trial since its beginning stages. Thanks to your support, BMT continues to change the lives of eligible people across the country.

How much vitamin D do people with MS or at risk of developing MS need each day?

Healthy, breastfed babies	400 IU (vitamin D supplements)	
Children and teens at risk	1 -3 years: 600 - 2500 IU 4 -8 years: 600 - 3000 IU 9 years and up: 600 - 4000 IU	**Keep vitamin D levels within the optimal range** Blood vitamin D levels should be monitored
Children with a first demyelinating event		**Test vitamin D levels at diagnosis** Vitamin D levels should also be checked regularly after diagnosis
Children and teens with MS	600 - 1000 IU (vitamin D supplements)	**Keep vitamin D levels within the optimal range** Vitamin D levels should be checked every 6 months by a doctor
Adults at risk (including women of childbearing age)	600 - 4000 IU (including during pregnancy and breastfeeding)	**Keep vitamin D levels within the optimal range** Talk to your doctor about how often your blood vitamin D levels should be checked
Adults with MS	600 - 4000 IU (including during pregnancy and breastfeeding)	**Keep vitamin D levels within the optimal range** Talk to your doctor about how often your blood vitamin D levels should be checked

The optimal level of vitamin D in the blood ranges from 50-125 nmol/L. To learn how you can ensure your vitamin D levels are within the optimal range, visit mssociety.ca/hot-topics/vitamin-d.

Leave a legacy of hope for Canadians with MS

You can invest in a future without MS and leave a legacy of hope with a bequest to the MS Society of Canada. Your legacy gift will help generations of Canadians living with MS and support research searching for new treatments and therapies.

For more information about legacy giving, please call us at 1-800-268-7582.

World MS Day is May 30

World MS Day brings people together from around the world to show support for everyone affected by MS. This year, we hope you will join us in bringing visibility to the often unseen impact that MS has on the quality of life. Post online using #MyInvisibleMS to show your support, or take part in events to help make positive changes for our friends and neighbours living with MS

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See you online!