

MS Education Event- December 2021

Supplemental Question & Answers from event presentations

The Triumph Trial seems somewhat disappointing for fatigue medications. Do you think there are too many other factors contributing to fatigue that are hard to control and study a fatigue medication or other reasons why these medications were no better than placebo?

Answered by Margaret Hansen, RPh: Yes, I agree that the complex nature of MS-related fatigue makes it difficult for studies to control for the many factors that contribute to fatigue. While the overall findings from the Triumph trial may seem disappointing, additional analyses had some encouraging results, including:

- Modafinil and methylphenidate demonstrated improvement on the psychosocial impact of fatigue compared to placebo.
- For people with high levels of day-time sleepiness, they recorded lower fatigue scores when treated with modafinil or methylphenidate compared to placebo.
- More people reported that they would choose modafinil (44%) or methylphenidate (43%) as a long-term fatigue medication than placebo (32%)

Takeaways from the data on fatigue medications is that while results may be conflicting, many people with MS report improvement with some aspect of their fatigue while taking these medications. Therefore, it is reasonable to try a medication for fatigue, and if it is not beneficial to try an alternate medication or discontinue it. Not everyone will respond to an MS fatigue medication. Other non-medication treatments for fatigue, like exercise and energy conservation techniques, should be considered, and best results may be achieved with a combination of approaches.

Light boxes can be used for people with seasonal affective disorder. Is there any indication that a light box could help with MS fatigue and sleep if fatigue is worse in the winter?

Answered by Meena Khan, MD: There are not studies looking at light boxes for MS fatigue as far as I know. However, using a light box in the morning can help set your circadian or sleep clock for a time to feel alert and maintain high light exposure during the day and keeping things dark at night will help set your sleep clock to the wake/sleep schedule you want which will help you feel more alert during the day.

What are the preliminary findings from your covid vaccine study?

Answered by Tirisham Gyang, MD: The preliminary results from the COVID vaccine study reveal that patient with MS on certain disease modifying therapies that suppress B cell have reduced antibody response to the COVID19 mRNA vaccines. These treatments include ocrelizumab (ocrelveus) and rituximab. The duration of time between the last infusion of these treatments and the vaccination correlates with antibody response. this means the longer one waits from the infusion, the better the response to vaccination.

I am interested in the covid vaccine trial. In relation to when I get the vaccine would I give blood for this study? Does it matter if I'm on DMT?

Answered by Tirisham Gyang, MD: Blood samples can be collected at least 2 weeks before you receive your vaccine and then 4 weeks after vaccination. Please visit <https://wexnermedical.osu.edu/participate-in-research> for more information.



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Is there a particular form of exercise that is recommended to manage MS fatigue?

Answered by Kara Gillum, PT, DPT:

I recommend the following considerations and options for exercising with MS:

- Participate in at least 150 minutes physical activity or exercise per day
 - Please keep in mind that this looks different for everyone and **it takes time to build up to this amount of activity**. It is important to **not rapidly increase the amount of activity** and exercise you are performing but work up to more activity gradually with rest breaks and fatigue monitoring.
 - It is recommended to perform a combination of the following types of activity:
 - **Aerobic, strength, breathing, and stretching activities**
 - **Aquatics** are recommended because they allow for a combination of the above types of exercise in one activity in a cooler and low impact environment
 - Types of **yoga, tai chi, pilates** can be helpful for stretching, balance and stability training.
 - Physical activity also includes functional activities you may do throughout the day. *Specific guidelines on appropriate exercise for your individual needs can be prescribed by contacting your physical therapist.*

Can you tell us more about your aging study in MS? How might the findings change how we think about progressive MS?

Answered by Yanan Zhang, MD: I am planning a study of biological age in individuals with MS. A person's biological age is measured by various biomarkers that reflect the genetic and molecular changes accumulating over time that contributes to his or her age-related decline in function. A person's biological age may be older or younger than their chronological age, and people whose biological age is older than their chronological age may be at risk of worse health-related outcomes. The goal of the study is to see if people with MS age differently from those without MS. This is important because if we find evidence that advanced biological aging is associated with worse disease outcomes, we will need to consider mechanisms of aging contributing to disease progression in MS and as potential targets of therapy. The study will measure markers of biological age from participants' blood and compare them to those from people without MS and correlate the biomarkers with clinical and MRI outcomes pertinent to MS. The study is expected to enroll starting in 2022.

Can my diet help to reverse or cure my MS? Does my diet contribute to my MS symptoms?

Answered by Kristi Epstein, APRN-CNP: There is currently no scientific evidence to suggest that diet can reverse MS symptoms. There is an immune error that happens in MS, and no diet has the capability to reverse this immune error. Once lesions develop and heal from the acute event, there is no evidence that any diet or medication can reverse/repair these areas of damage known as "sclerosis".

In regard to systemic inflammation, diet and supplements can definitely contribute to decreasing systemic inflammation and helping to improve cellular function which can be very helpful for the inflammatory component involved chronic diseases. We recommend whole foods, non-processed foods, avoiding allergens and being aware of gut health. There is a fair amount of data regarding specific supplements that can support cellular function. I would encourage a QOL visit for in-depth discussion.



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What are the current COVID-19 vaccine and vaccine booster recommendations for people with MS?

Answered by Kristi Epstein, APRN-CNP: CDC recommendations are constantly changing, so please consult your MS physician or clinic for the most up-to-date information.

- Patients who are **not** on disease modifying therapy (DMT) do not need the COVID19 (SARS-COV-2) vaccine booster shot, **unless recommended for the general population**
- Some MS drugs are known to weaken immune responses to vaccines.
 - Consider getting a booster if you are being treated with B cell depleting drugs (Ocrevus, rituxan, kesimpta), S1P modulators (Gilenya, Mayzent, Ozanimod), Lemtrada, mavenclad, Tecfidera, Vumerity, or Aubagio.
 - For individuals treated with Ocrevus or Rituxan, the booster should be given within **12 weeks after the last infusion and 4 weeks before the next infusion.**
 - If you are taking the following drugs, it may not necessary to get the booster, **unless recommended for general population:** Copaxone, Glatopia, interferons (Rebif, Betaseron and Avonex), or Tysabri
- If you are interested, we can order the COVID-19 IgG test (SARS-COV-2 Spike (S) Protein Antibody). This test will indicate if your blood contains antibodies against the COVID-19 virus but WILL NOT tell us the concentration of antibodies (quantitative). The clinical lab is a qualitative test, and the result usually has the statement - *"This result should not be used to determine immunity to or protection against COVID-19."*
- Refer to our website for 2 recorded talks on Covid 19 and MS at www.wexnermedical.osu.edu/MSCommunity.
- Refer to CDC recommendation regarding the Covid-19 booster guidelines at <https://www.cdc.gov>.
 - These are recommendations, and will be updated as more evidenced-based consensus is available. The decision to get a booster should be discussed with your MS provider.
- If the booster becomes available and is recommended for the general population, patients can proceed using an educated choice.
- A doctor's order is not needed for the Covid-19 booster, and the Covid-19 booster will not be given in the Department of Neurology. When Covid-19 booster shots are available, they will be given at established Covid-19 vaccination stations.
- OSU is conducting a study to measure the blood levels of protective antibody responses against COVID19 in patients with MS who have or have not received the vaccine. In some cases, blood levels will be collected before and after the vaccine, or booster, is administered. If you are interested in participating, send an email message to: MSresearch@osumc.edu.

Please note: Our MS physicians and clinical team have provided responses to these listed questions that were posed at a live webinar event. The answers noted above are not replacement for treatment. For questions and additional information, please discuss with your MS Provider or Neurologist.

Visit wexnermedical.osu.edu/MSCommunity for resources and to learn more about The Ohio State University Medical Center's MS Clinic and Care Team.



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