

## **Nutrition and exercise in myasthenia gravis. What do we know in 2024?**

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Exercise and nutrition play important roles in managing myasthenia gravis (MG), a condition that causes muscle weakness and fatigue. While medications are crucial, recent research shows that non-medical approaches are also valuable.

Exercise, once viewed with caution due to muscle weakness in MG, is now recognized as safe and beneficial for many patients. Studies reveal that exercise can improve fatigue, endurance, and overall quality of life in many individuals with MG. Exercise can also help mitigate some side effects of steroids, such as weight gain, loss of muscle mass and osteoporosis.

It's recommended to combine aerobic and strengthening exercises, such as walking or using resistance machines, but start slowly and gradually increase intensity. Before starting an exercise regimen, consult your doctor and possibly a physical therapist. They can ensure safety and provide tailored exercises. Consider timing exercise sessions when you feel strongest and take your pyridostigmine (if you use it) about an hour before to maximize its effect. Stay hydrated and avoid overheating, as heat can worsen MG symptoms.

In terms of diet, while there's no specific diet proven to help MG, a balanced diet, low on refined sugars, can support overall health and mitigate side effects of medications, like prednisone-induced diabetes. If swallowing or chewing is difficult, consult a speech pathologist for guidance.

Regarding fasting, a study found that fasting during Ramadan didn't significantly worsen MG symptoms for most patients, but it's crucial to discuss with your doctor before fasting and continue medications as prescribed.

In summary, exercise and nutrition can positively impact MG management. Consult your healthcare team to tailor an exercise plan and ensure a balanced diet, optimizing your overall health and well-being.

### **References:**

- Ismail II, Abokalawa FM, A.Kamel W, Khan R, Al-Hashel JY. Association of Ramadan Fasting and Clinical Outcomes in Patients With Myasthenia Gravis. *JAMA Netw Open*. 2020 Apr 1;3(4):e204373. doi: 10.1001/jamanetworkopen.2020.4373. Erratum in: *JAMA Netw Open*. 2020 May 1;3(5):e2010013. PMID: 32324235; PMCID: PMC7180419.
- Gilhus NE. Physical training and exercise in myasthenia gravis. *Neuromuscul Disord*. 2021 Mar;31(3):169-173. doi: 10.1016/j.nmd.2020.12.004. Epub 2020 Dec 24. PMID: 33461846.
- O'Connor L, Westerberg E, Punga AR. Myasthenia Gravis and Physical Exercise: A Novel Paradigm. *Front Neurol*. 2020 Jul 29;11:675. doi: 10.3389/fneur.2020.00675. PMID: 32849178; PMCID: PMC7403401.
- Corrado B, Giardulli B, Costa M. Evidence-Based Practice in Rehabilitation of Myasthenia Gravis. A Systematic Review of the Literature. *J Funct Morphol Kinesiol*.

2020 Sep 27;5(4):71. doi: 10.3390/jfmk5040071. PMID: 33467286; PMCID:  
PMC7739309.