Madison Neurology LLC: Compiled for Educational Purposes. Not for Clinical Use.

MADISON NEUROLOGY LLC

608 403 0000

Neurology Care 7 days a Week. Because Your Brain Matters.

Myasthenia Gravis (MG)

Patient education guide · Demyelinating & Autoimmune · Madison Neurology LLC

What is it?

Myasthenia gravis is an autoimmune disease of the junction between nerves and muscles. Antibodies block or destroy the receptors that receive the nerve's 'contract' signal, causing fluctuating, fatigable weakness: muscles work, then weaken with use and recover with rest. It most characteristically affects the eyelids, eye movements, face, speech, swallowing, and limbs.

How does it happen?

In most patients, antibodies target the acetylcholine receptor (AChR); others have MuSK or LRP4 antibodies. The thymus gland is involved in many cases — some patients have a thymoma (usually benign tumor). MG can occur at any age; it is not inherited or contagious.

Common symptoms

- Drooping eyelids (ptosis) and double vision, worse as the day goes on
- Fatigable weakness: chewing, brushing hair, climbing stairs gets harder with repetition
- Slurred or nasal speech; difficulty swallowing
- Shortness of breath in severe cases (myasthenic crisis — an emergency)
- Weakness fluctuating day to day, worsened by heat, illness, or certain medications

How is it diagnosed?

Blood antibody tests (AChR, MuSK, LRP4) confirm most cases; electrodiagnostic tests (repetitive stimulation, single-fiber EMG) demonstrate the fatigable transmission defect. CT of the chest checks the thymus. The exam pattern — fatigable, fluctuating weakness — is highly characteristic.

How is it treated?

Pyridostigmine improves signal transmission for symptomatic relief. Immune treatments control the disease: steroids and steroid-sparing agents (azathioprine, mycophenolate), and newer targeted biologics (eculizumab, ravulizumab, efgartigimod, rozanolixizumab) for generalized disease. IVIG or plasma exchange rescue worsening or crises. Thymectomy (surgical thymus removal) benefits many AChR-positive patients and is mandatory if thymoma is present. Certain drugs (some antibiotics, magnesium, beta-blockers, Botox) can worsen MG — your medication list should be reviewed.

What does the future hold?

With modern treatment, most patients achieve minimal symptoms or remission and normal life expectancy; many taper to low maintenance therapy. Myasthenic crises are far less common with current care. Living with MG means planning around fluctuation — rest strategically, treat infections early, and keep your specialist informed before starting new medications or surgery.

Questions patients commonly ask

Q: Why is my weakness worse at night?

A: MG receptors deplete with use through the day and recover with rest — the hallmark fatigable pattern.

Q: Will I need my thymus removed?

A: If a thymoma is present, yes. Otherwise, thymectomy is recommended for many AChR-positive patients under 65 because it improves control and reduces medication needs.

Q: Can I have surgery, anesthesia, or vaccines?

A: Yes, with planning — tell every provider you have MG, as some anesthetics and drugs require adjustment.

National support groups & resources

- **Myasthenia Gravis Foundation of America** — myasthenia.org — 1-800-541-5454
- **National Organization for Rare Disorders** — rarediseases.org — 1-800-999-6673
- **American Academy of Neurology — Brain & Life patient resources** — brainandlife.org

(Organization contact details were current at the time of compilation; please verify online.)

Disclaimer — please read

This material is provided by Madison Neurology LLC for general educational purposes only. It is not medical advice, is not a substitute for the independent judgment of a qualified healthcare professional, and does not create a physician-patient relationship. Do not disregard, avoid, or delay seeking professional medical advice, diagnosis, or treatment because of anything in this material. Individual conditions, treatments, and outcomes vary; only your own healthcare team can evaluate your specific situation. If you think you may be experiencing a medical emergency, call 911 or go to the nearest emergency department immediately. To the fullest extent permitted by law, Madison Neurology LLC, its providers, and staff disclaim all liability for any loss, injury, or damage arising from the use of, reliance on, or inability to use this information. Organization contact details are provided as a courtesy, were current at the time of compilation, and may change; Madison Neurology LLC is not responsible for the content of external organizations.