

Series 1:
Intro to MOGAD

MOGbytes™

A snack-sized guide to
understanding MOGAD



a series brought to you by



M

yelin

O

ligodendrocyte

G

lycoprotein

A

ntibody-associated

D

isease





MOGAD

is a rare autoimmune condition that targets a protein (MOG) found on the protective coating of nerves in the:



Eyes



Brain



Spinal Cord

Did you know?



MOGAD:

- **Affects 1.3 to 3.4 out of every 100 000 people worldwide**
- **Diagnostic testing differences may affect these numbers**
- **This number is growing as testing becomes more widespread and MOGAD research is improving**
- **Impacts all ages with the average age of first symptoms being 28-30 years old**
- **Often looks different depending on age**
 - **Acute disseminated encephalomyelitis (ADEM) is more common in patients under 10 years old**
 - **Optic neuritis and myelitis are more common in adults**
- **Has not been linked to gender or race**



Symptoms



MOGAD can impact patients differently



**Blurry vision
Vision loss
Color vision loss
Eye pain**



**Headaches
Seizures
Behavioral changes
Memory loss**



**Changes in:
Bladder and bowel sensation
Bladder and bowel function
Sexual function**



**Weakness or numbness
in arms and/or legs
Chronic fatigue**

Symptoms



MOGAD presents as a sudden onset of symptoms, also known as an attack, that range in type and severity.

- Patients may experience a **single attack** over a lifetime (termed monophasic disease) or **multiple attacks** known as relapsing.
- Around **half of all patients** with MOGAD will experience a relapse.
- Following the first attack, **some patients fully recover**, while **others may experience ongoing symptoms**.



Diagnosis



STEP 1 | Recognizing key symptoms

- Vision changes or eye pain
- Weakness or numbness in arms or legs
- Confusion, seizures, or changes in behavior



STEP 2 | MOG antibody blood test

- A clear positive result to support MOGAD diagnosis
- Borderline results might require more testing or MRI confirmation



STEP 3 | MRI and Additional Testing

- MRI to identify lesions (spots of inflammation or damage) on the optic nerves, brain, brainstem, or spinal cord
- Additional clinical testing may include Optical Coherence Tomography (OCT) and Visual Field Testing (VTF)

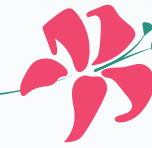


STEP 4 | Rule out other conditions

- Doctors must rule out other potential causes of symptoms, including but not limited to:
 - Multiple sclerosis (MS)
 - Neuromyelitis optica spectrum disorder (NMOSD)

Every patient's experience with MOGAD is unique. This is a general guide to the diagnostic process — your doctor will choose the tests that best fit your needs.

Treatment Options



During an attack

- IV or oral steroids
- Plasma exchange (PLEX)
- Intravenous immunoglobulin (IVIG)



Preventative

- Mycophenolate mofetil (CellCept)
- Azathioprine (Imuran)
- Steroids
- Rituximab (Rituxan)
- IVIG or subcutaneous immunoglobulin (SCIG)
- Tocilizumab (Actemra)



Potential new treatments

- Currently, there are two ongoing clinical trials:
 - CosMOG
 - Meteoroid
- Each trial is studying a different treatment for MOGAD



There is currently no specific treatment for MOGAD and treatment options are different based on country.

References



Akaishi, Tetsuya, et al. "Relapse Activity in the Chronic Phase of Anti-Myelin-Oligodendrocyte Glycoprotein Antibody-Associated Disease." *Journal of Neurology*, vol. 269, no. 6, 25 Nov. 2021, pp. 3136–3146, doi:10.1007/s00415-021-10914-x.

Banwell, Brenda, et al. "Diagnosis of Myelin Oligodendrocyte Glycoprotein Antibody-Associated Disease: International MOGAD Panel Proposed Criteria." *The Lancet Neurology*, vol. 22, no. 3, Mar. 2023, pp. 268–282, doi:10.1016/s1474-4422(22)00431-8.

Cacciaguerra, Laura, and Eoin P. Flanagan. "Updates in NMOSD and MOGAD Diagnosis and Treatment." *Neurologic Clinics*, vol. 42, no. 1, Feb. 2024, pp. 77–114, doi:10.1016/j.ncl.2023.06.009.

ClinicalTrials.Gov, clinicaltrials.gov/study/NCT05063162. Accessed 11 Nov. 2025.

ClinicalTrials.Gov, clinicaltrials.gov/study/NCT05271409. Accessed 11 Nov. 2025.

Grant-Peters, Melissa, et al. "No Strong HLA Association with MOG Antibody Disease in the UK Population." *Annals of Clinical and Translational Neurology*, vol. 8, no. 7, 15 May 2021, pp. 1502–1507, doi:10.1002/acn3.51378.

Hor, Jyh Yung, and Kazuo Fujihara. "Epidemiology of Myelin Oligodendrocyte Glycoprotein Antibody-Associated Disease: A Review of Prevalence and Incidence Worldwide." *Frontiers in Neurology*, vol. 14, 15 Sept. 2023, doi:10.3389/fneur.2023.1260358.

Li, Yunjie, et al. "Clinical Features and Imaging Findings of Myelin Oligodendrocyte Glycoprotein-IgG-Associated Disorder (MOGAD)." *Frontiers in Aging Neuroscience*, vol. 14, 15 Mar. 2022, doi:10.3389/fnagi.2022.850743.

Risi, Mario, et al. "Longitudinal Assessment of Cognitive Function in Patients with Non-Relapsing MOG-IgG Associated Disease." *Journal of the Neurological Sciences*, vol. 470, Mar. 2025, p. 123413, doi:10.1016/j.jns.2025.123413.

Trewin, Benjamin P., et al. "MOGAD: A Comprehensive Review of Clinicoradiological Features, Therapy and Outcomes in 4699 Patients Globally." *Autoimmunity Reviews*, vol. 24, no. 1, Jan. 2025, p. 103693, doi:10.1016/j.autrev.2024.103693.

**This series is brought to you by The MOG Project
in partnership with UCB.**



Inspired by **patients.**
Driven by **science.**

Developed in collaboration with Elias Sotirchos, MD, Associate Professor of Neurology
at The John Hopkins University School of Medicine

