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# What is generalized myasthenia gravis (gMG)?

Myasthenia gravis (MG) is a **chronic autoimmune disease** that causes muscle weakness and fatigue. It can affect people of all races, ages and genders, with an estimated prevalence of **26.3 cases per 100,000 people** in Ontario. It is not thought to be directly inherited, nor is it contagious.

#### **MYASTHENIA GRAVIS CAN AFFECT**





MG typically affects ocular muscles first, and then symptoms spread outside the eye to other parts of the body. At this stage, it is called generalized myasthenia gravis (gMG).



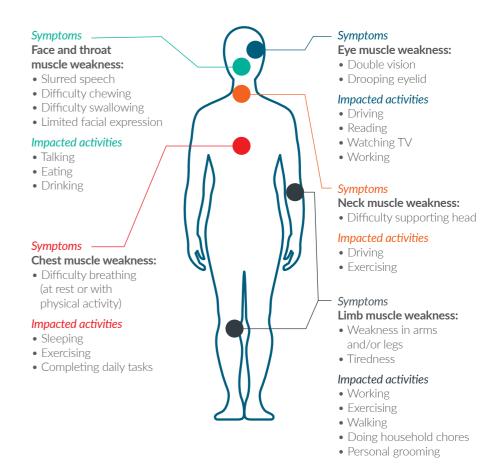
Patients with gMG experience **muscle weakness** and **fatigue** that can affect daily activities such as tooth-brushing, hair-combing, speaking (dysarthria) or swallowing (dysphagia).



Despite adequate treatment, some patients continue to experience symptoms. Sometimes these patients are referred to as "refractory". Speak regularly with your doctor about your symptoms and the impact they have on your daily life.

# How can gMG affect my life?

gMG affects each person differently. Common symptoms include chronic fatigue and weakness in different muscle groups, that can impact daily activities and quality of life (QoL). In addition, symptom severity can increase unexpectedly, and might lead to hospitalization.

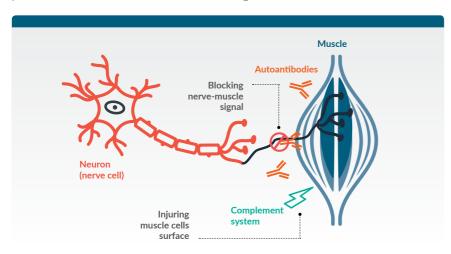


## What causes gMG?



The immune system is our body's **natural defence** against foreign threats. In gMG, the immune system mistakenly recognizes parts of our own body as foreign and attacks them, causing a malfunction. This is called an **autoimmune response**.

In gMG, our own antibodies **interrupt nerve-to-muscle communication** by targeting muscle cells. They also activate the **complement system**\*, which mistakenly attacks and injures the muscle surface. The consequences of this process lead to muscle weakness and fatigue.



# There are several types of self antibodies (autoantibodies) that can cause gMG







Anti-MuSK+ Other antibodies

Anti-AchR+, anti-acetylcholine receptor positive; Anti-MuSK+, anti-muscle-specific kinase positive.

## How can I manage the disease?

**Learning how to deal with the disease is essential** for people with gMG. Some medications can help patients with their symptoms. There are also things you can do to manage the disease:



#### Nutrition

Your diet will play a **crucial role** in maintaining your health. Weight gain is a common problem associated with gMG, due to decreased activity. Follow nutritional advice from your healthcare provider.

#### Eating

Changing your eating habits is just as important as **eating healthy food**. Consider:

- Eating smaller meals.
- Breaking down solid foods.
- Planning your meals for times you have plenty of energy.
- Figuring out the right neck position that makes swallowing food easier.



#### Work

Manifestations of gMG can limit people's ability to perform their job tasks. Accommodating your workplace might be critical (e.g., flexible schedule, telework, accessible parking). Consult your local work disability regulation for more help.

#### xercise

Exercise within your limits is absolutely recommended if you are able.\* Don't exercise if you feel weak.

- The elliptical machine is a good option.
- \* Be sure to talk to your doctor before you begin any exercise program.



#### Pregnancy

The course of MG during pregnancy is unpredictable, but there is **no evidence** that MG can adversely affect pregnancy outcomes. If you are planning to become pregnant, you should **tell your doctor**.

# ?

#### Talk to your doctor

Your healthcare team is the best resource when it comes to support and information about the management of your disease. Together, you and your doctor can identify strategies to help manage the challenges and risks of gMG.

<sup>\*</sup> A part of the immune system that, in normal function, is responsible for removing bacteria or other pathogens from the organism.

# What treatment options are available for me?

Today, myasthenia gravis **can generally be controlled**. There are several therapies available to help reduce and improve muscle weakness.

**Treatment goals are individualized** according to the severity of the gMG weakness, age and sex, and the degree of impairment. There is a range of available treatments which can adapt to different disease conditions and help to reduce the severity of gMG symptoms.



Antiacetylcholinesterase agents



Corticosteroids



Immunosuppressant agents



Plasmapheresis



Thymectomy



Intravenous immunoglobulins



Complement inhibitors

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#### Discuss with your doctor

If your symptoms continue to affect your daily activities, even with treatment, tell your doctor. Together, you and your doctor can identify strategies to effectively manage gMG.

# How is gMG monitored?

There are various assessment tools, like the MG-ADL, which are designed to measure the severity of gMG. These tools can help you see how your gMG symptoms change over time.

The Myasthenia Gravis Activities of Daily Living (MG-ADL) assessment tool

The MG-ADL assessment tool can help you and your doctor evaluate your gMG



The **MG-ADL** assessment tool is designed to measure the severity of your symptoms and the impact they have on your daily activities.

You can complete the 8-item form and return it to your doctor so you can both use the results to track your progress.



#### Ask your doctor

It is advisable to complete the MG-ADL tool with your doctor at your appointment every 3 months, so they can resolve any questions you could have.

## **Notes**

Use this section to record information from your healthcare provider, track your symptoms, or take any other notes you might find useful.

NOTES:			

#### YOU ARE NOT ALONE!

## **Support resources**

The following community resources and advocacy groups can provide you with additional support and can help to connect you with others who are living with gMG.

#### SUPPORT GROUPS



Myasthenia Gravis Society of Canada mgcanada.org



Myasthenia Gravis Foundation of America myasthenia.org



Muscular Dystrophy Canada muscle.ca

#### Other online resources:



Myasthenia Gravis News myastheniagravisnews.com



Myasthenia Gravis Facebook Group (Canada)

Myasthenia Gravis Friends

#### Be prepared

Although you may never experience a gMG-related emergency, being prepared for one is essential. You should have an emergency plan in place in order to make decisions and provide critical information to healthcare professionals. In Canada, gMG patients with a Patient Safety Card should always carry it with them and show it to any healthcare professional they see.

