# **MYASTHENIA GRAVIS**

Myasthenia Gravis (MG) is a chronic autoimmune disorder causing intermittent muscle weakness in the arms, legs, neck, eyes and face. It can also affect breathing. Autoimmune means that the body mistakenly attacks its own cells. In MG, the nerve signals that normally cause muscle movements are disrupted. The muscle weakness tends to be worse when people are active and subsides when they are quiet or resting.

Men and women of any age can get MG, however, women typically develop this at a younger age than men. Children can develop this condition due to a genetic defect, however, this is rare.

#### What Causes Myasthenia Gravis?

Myasthenia Gravis is triggered by a defect in the way the body's nerve impulses are transmitted to muscles. During normal functioning, nerve endings release a substance called acetylcholine. This chemical binds to certain receptors in the body, which enables a muscle contraction to occur. With MG, antibodies block, destroy or alter the acetylcholine receptors – so they cannot function properly. This prevents muscle contractions from taking place.

## **Common Symptoms**

Myasthenia Gravis can affect any voluntary muscle in the body. Typically, symptoms can occur gradually or episodically and may be similar to symptoms of other conditions. These include:

- Muscle weakness in the eyes and face
- · Muscle weakness in the limbs
- · Eye droopiness, blurred or double vision
- · Difficulty swallowing, chewing and talking
- · Difficulty breathing



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## Diagnosing Myasthenia Gravis

It is essential to have a neurologist evaluate a patient by taking a thorough medical history and performing a neurological examination.

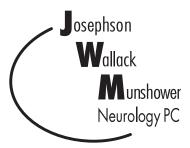
Based on patient symptoms, this will enable the neurologist to rule in or rule out other diseases.

Some tests that may be performed include: a special blood test, an EMG (electromyography), which tests functionality of muscles/nerves and imaging scans. A test using a substance called edrophonium chloride – which temporarily relieves muscles weakness for a short period of time in people with MG – may also be performed.

## Treating and Controlling Myasthenia Gravis

While there is no cure for Myasthenia Gravis, there are effective therapies to keep it under control. With these treatments, symptoms improve, remission can be accomplished and people with MG can live normal, productive lives. Some of the treatments include drugs to improve muscle weakness such as immunosuppressive drugs or anticholinesterase agents, neostigmine and pyridostigmine. Intravenous gamma globulin (IVIg) may also be administered. Other options include surgery of the thymus and plasmapheresis to remove abnormal antibodies from the blood. Treatment of MG is a trial and error process and can take time to pinpoint what works best for each person.

Getting proper rest and managing stress are both very important.



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For more information about Myasthenia Gravis, visit the Myasthenia Gravis Foundation of America at: myasthenia.org