Myasthenia Gravis

What is myasthenia gravis?

Myasthenia gravis is a disorder that may cause muscles to weaken and tire easily. The disorder can affect muscles that control eye and eyelid movement. This may cause eyelid drooping, or double vision.

Most people who have these eye symptoms of myasthenia may develop weakness in other places in a year or two. This broader form affects the muscles of the face, eyes, arms, and legs. It also affects the muscles used for chewing, swallowing, and talking. It can affect muscles used for breathing. When it does, this is a life-threatening situation known as a myasthenic crisis.

With myasthenia gravis it is typical to have periods of muscle weakness followed by periods of few or no symptoms.

What causes myasthenia gravis?

Your body's own immune system damages the muscles' receptors and causes myasthenia gravis. With myasthenia gravis, your immune system produces antibodies that interfere with the receptors. This interference damages the connection between the chemical that travels from nerve endings and the receptors. Your muscles need this connection for them to work correctly. Without it the muscles become weak.

The first symptoms of myasthenia gravis can include ptosis, or droopy eyelids.

Myasthenia gravis is a disorder that causes muscles to weaken and tire easily. It affects muscles that control eye and eyelid movement. This may cause eyelid drooping, or double vision.

What are the symptoms of myasthenia gravis?

The first symptoms of myasthenia gravis often involve the eyes. The most common sign is ptosis, or drooping eyelids. This may affect one or both eyes. If you have myasthenia gravis, you may also feel more tired as the day goes on.

Other myasthenia gravis symptoms include:

- double vision
- weakness in the arms or legs
- difficulty breathing, talking, chewing, or swallowing

Who gets myasthenia gravis?

There are no known risk factors for myasthenia gravis. People who have a family history of myasthenia gravis may be at greater risk to get the disease. Women are more likely to get myasthenia gravis between the ages of 20 and 40. Men are more likely to get the condition after the age of 60. But myasthenia gravis can occur at any age.

Myasthenia gravis can get worse with stress, illness, and fatigue. If you have myasthenia, check with your doctor before taking any new prescription or over-the-counter medicine. Certain medicines can contribute to worsening myasthenia gravis symptoms.

How is myasthenia gravis diagnosed?

To diagnose myasthenia gravis, your ophthalmologist can conduct tests, including:

- a blood test to look for abnormal antibodies
- neurological examination of your physical condition and mental skills
- a nerve stimulation test of the electrical activity in your muscles
- a test with a nerve stimulant called edrophonium chloride. Your doctor will inject it to see if you have temporary improvement in your muscle strength

How is myasthenia gravis treated?

A neurologist will work with a neurologist to help determine the best treatment. The treatment will depend on several things, including the affected muscles and how weak these muscles are.

Treatment may include one or more of the following:

- medicines that help improve transmission between nerves and muscles and increase muscle strength
- medicines that improve muscle strength by suppressing the production of abnormal antibodies
- a surgery to remove the thymus gland if your doctors think it may be playing a role.
- plasmapheresis. This removes abnormal antibodies from the blood and replaces them with normal cells.
- intravenous immune globulin. This is a medicine that can add antibodies from donated blood.

Physical therapy and learning new coping skills may help to improve daily life.

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Summary

Myasthenia gravis is a disorder that causes muscles to weaken and tire easily. The disorder can affect muscles that control eye and eyelid movement. The disease can affect the muscles of the face, eyes, arms, and legs. It can also affect the muscles used for chewing, swallowing, talking, and breathing. When it affects breathing, it is a life-threatening situation. Your ophthalmologist, working with a neurologist, will help determine the best treatment for your eye symptoms. The treatment will depend on the affected muscles and how weak these muscles are.

Get more information about myasthenia gravis from EyeSmart—provided by the American Academy of Ophthalmology—at **aao.org/myasthenia-gravis-link**.

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