

## MYASTHENIA GRAVIS



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What is myasthenia gravis? Myasthenia gravis is an autoimmune neuromuscular condition causing muscle weakness.

Statistics: In the United States, the diagnosis of myasthenia gravis is 1 in 500,000 people every year.

How is it caused? Myasthenia gravis occurs as a result of interrupted communication between nerves and muscles. In this condition, acetylcholine receptors are either destroyed, blocked, or altered by the body's antibodies and hence prevents muscles from contracting. The thymus gland plays a vital role in this health condition. Thymus gland may be involved in controlling the antibodies that block acetylcholine.

Are there any risk factors? There are no known risk factors but those with a family history are at greater risk of myasthenia gravis. This disease can occur at any age but women between the ages of 20 and 40 are more likely to get it while men after the age of 60 may get it. Few factors that may worsen myasthenia gravis such as fatigue, stress, and medications like beta-blockers, phenytoin, and quinine.

What are the signs and symptoms? Besides muscle weakness of the limbs and neck, one may experience double vision (diplopia), drooping of eyelids (ptosis), dysphagia (difficulty in swallowing), chewing difficulty, dysarthria (impaired speech), and facial expression limitation.

How is the diagnosis made? The diagnosis of myasthenia gravis is based on physical examination including neurological examination and some tests such as edrophonium test, blood tests, ice pack test, repetitive nerve stimulation, single-fiber electromyography, pulmonary function tests, and a CT scan or MRI.

What is the treatment? The treatment modalities include medications, intravenous therapy, and surgery. Medications include cholinesterase inhibitors, corticosteroids, and immunosuppressants. Intravenous therapy includes plasmapheresis, intravenous immunoglobulin, and monoclonal antibody. Surgery includes thymectomy which involves the removal of the thymus gland.

There are some remedies one may attempt such as planning your day to avoid tiredness; having small meals more frequent to avoid chewing difficulties; eating a diet that meets your myasthenia-gravis needs; getting involved in respiratory muscle training to improve your respiratory muscles and to prevent the risk from developing myasthenia crisis; wearing an eye patch if you have double vision; avoiding manual work as much as you can such as using an electric toothbrush; getting support from family members and friends; making your home environment safe such as having less stairs and staying away from slippery floors; taking long bath rather than shower to avoid standing for too long and doing arm movements; avoiding triggers that can worsen your symptoms such as stress, anger, depression, alcohol, bright light, inadequate sleep, hot food and drinks and tonic water; trying out traditional Chinese medicine such as Yiqi Qushi recipe and getting chiropractic care.

Are there any complications? There are few complications associated with this condition such as myasthenia crisis, thymus tumors, and hypo/hyperthyroidism.

Myasthenia crisis is a life-threatening complication. In this condition, the respiratory muscles become very weak and eventually one would have trouble breathing and would have to be put on a ventilator.

Immediate consultation is required if you are experiencing muscle weakness along with difficulty in chewing/swallowing, seeing, and/or breathing.

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